1 points

A 62-year-old man is referred to a cardiology clinic at a local teaching hospital that serves as the tertiary care center for the surrounding area. The patient suffered a myocardial infarction 2 months •ago, and has been sent by his primary physician for management of his blood pressure. While reviewing his medical record, the physician finds that the patient's hypertension has been treated only with verapamil. The patient also takes a daily 81-mg aspirin tablet and a statin. His high-density lipoprotein and low-density lipoprotein levels are within the desired range. The cardiologist is surprised that the primary physician had not placed him on a beta-blocker and/or angiotensin-converting enzyme inhibitor for control of his blood pressure given his history of myocardial infarction. Which of the following is the most appropriate statement to make to the patient?

1. "It is a good thing you came to us when you did. I am concerned that your blood pressure is not being managed appropriately."
2. "Sometimes rural physicians aren't able to keep up with the latest medical research, so it's understandable that we need to make some adjustments to your current medications."
3. "Your primary physician has you taking the wrong blood pressure medications, but we can make some changes now to try and prevent another heart attack."
4. "Your primary physician sent you lo me because he is concerned about your blood pressure given your previous heart attacks. Let's see what we can do to optimize your current treatment." ✔
5. "Your primary physician has done a great job managing your other risk factors, but I have no idea why he failed to put you on the appropriate blood pressure medications."

INCORRECT ✖

The correct answer is 4.

The primary physician has instituted proper cholesterol and antiplatelet therapy and has referred the patient for more specialized care of his hypertension. For unclear reasons, the primary physician placed the patient on a calcium channel blocker for his hypertension despite the evidence that beta-blockers and angiotensin-converting enzyme (ACE) inhibitors help improve outcomes after myocardial infarction. Calcium channel blockers (eq, verapamil) are potent and effective anti-hypertensives with anti-anginal properties, but they do not provide an additional mortality benefit for patients with myocardial infarction.

Although the primary physician has not used a beta-blocker or ACE inhibitor, this physician has administered an acceptable medication that is within the standard of care for individuals with hypertension. Furthermore, the primary physician is seeking specialist assistance in managing the patient's hypertension, which implies that the physician cares about optimizing this patient's management. In situations in which one physician disagrees with another's practices (but that physician's practices are within the standard of care), it is inappropriate and unprofessional to undermine that physician's judgment during discussions with the patient.

(Choices 1, 2, 3 & 5) These choices could undermine the patient's confidence in his primary physician, damaging the doctor-patient relationship. The best way to handle this situation is to privately discuss the patient with the referring physician to understand the reasons for past treatment decisions and explain the reasoning behind the suggested changes in management. The primary physician's actions should be criticized in front of the patient only if the physician has been grossly negligent or provided treatment well outside of the acceptable standard of care.

1 points

A 79-year-old man is admitted to the hospital for exacerbation of chronic obstructive pulmonary disease. His other medical problems include coronary artery disease, type 2 diabetes mellitus, and obesity. He has smoked cigarettes daily for more than 50 years. His wife says that she is concerned about his health due to multiple hospitalizations over the last year for various issues relating to his comorbidities. After performing the history and physical examination, the treating physician decides to continue his existing medications for diabetes and heart disease. He is also started on supplemental oxygen, bronchodilators, antibiotics, and systemic corticosteroids for his chronic obstructive pulmonary disease exacerbation. Which of the following topics is the most essential to address during the rest of the admission process?

1. Documentation of financial status, as the patient may require a home ventilator if his lung disease continues to worsen
2. Education about smoking cessation to reduce his risk of dying from heart or lung disease
3. Education about diet and exercise to improve glycemic control and heart health
4. Ensuring the presence of a will so that personal matters are organized should he pass away during this hospitalization
5. Inquiring about the presence of advance directives and the patient's wishes for end-of-life care ✔

INCORRECT ✖

The correct answer is 5.

Advance care planning ideally should begin in the outpatient setting as a conversation between the patient and the primary care provider. However, when a patient is hospitalized, it is essential to inquire about advance directives in the event that the patient becomes unable to make decisions. As part of the admission process, patients should be asked whether they have advance directives and informed about options for creating them if they do not. Some physicians may be reluctant to discuss these issues, but studies have shown that most patients prefer to have end-of-life discussions with their caregivers.

Advance directives consist of 2 main components: a living will and a health care proxy. A living will specifies the patient's end-of-life wishes and often includes specific directives regarding intubation, cardiopulmonary resuscitation, enteral feeding, and other life-prolonging interventions. A health care proxy document allows the patient to designate a specific individual to make health care decisions should the patient become incapacitated. The proxy decision maker must always make these decisions in accordance with the patient's wishes, as outlined in the living will.

(Choices 1, 2, 3 & 4) These are non-acute issues that, while important, are not essential to address during the hospital admission process. These issues should be addressed by the patient's primary care physician in the outpatient setting.

1 points

A 75-year-old Chinese man is brought to the emergency department by his family with sudden-onset shortness of breath. He speaks only Mandarin Chinese. A medical interview is conducted with the assistance of a hospital interpreter, and the patient reports a chronic cough and a 13.6-kg (30-lb) weight loss over the past 6 months. Chest x-ray demonstrates a large right lung mass and an associated pleural effusion. The patient is hospitalized and undergoes bronchoscopy with biopsy; the pathology report comes back as bronchogenic carcinoma. Before the physician enters the room to discuss the biopsy results, he is approached by the patient's son and other family members. They ask that the physician not disclose any bad news to their father as "it would distress him to know." When the patient is asked about this, he defers to his son's judgment, saying, "I am not interested in knowing." Further discussion indicates that the patient is cognitively intact without signs of mental illness. The son and other family members state that they do not want the patient to receive any further information about his condition, prognosis, or treatment options. Which of the following is the most appropriate response to the patient's son?

1. "I am concerned that you are preventing your father from making decisions abou1 his own health."
2. "I am obligated to inform your father of his diagnosis."
3. "I can only withhold information if the diagnosis is terminal."
4. "I will not inform him of the results if that is his preference." ✔
5. "Until he appoints a surrogate decision maker, I must inform him of his health status."

INCORRECT ✖

The correct answer is 4.

Patients have the right to preemptively refuse to receive medical information. However, it is important to thoroughly evaluate these patients to ensure that misinformation, delirium, or psychiatric illness is not affecting their decision. This patient's decision is likely based on his cultural beliefs and values. It is important to realize that certain cultures may view withholding medical information from a cognitively intact, competent patient as appropriate. These cultures often value beneficence over the traditional Western emphasis on autonomy. As such, direct disclosure of a serious illness to a family elder may be considered unnecessarily cruel or disrespectful. Instead, emphasis is placed on family members making health care decisions for the patient. Other cultural reasons for non-disclosure include the belief that open discussion may cause the patient unnecessary anxiety, depression, or hopelessness or that speaking aloud about a condition makes death or terminal illness more certain.

Physicians should manage different cultural values with an open, sensitive approach that includes interest in learning about the preferences of the patient and family. If the patient has capacity and expresses a clear preference, it is important to respect these wishes by withholding the information. However, care must be taken to fully document all pertinent conversations with the patient and family.

(Choice 1) This statement fails to acknowledge the patient's and family's cultural values.

(Choices 2 & 3) Information can almost always be withheld, regardless of the diagnosis or stage of illness. The only exception would be a diagnosis that puts others at risk, such as a transmissible infectious illness.

(Choice 5) Although it is appropriate to ask the patient to designate his son as the surrogate decision maker, the physician should respect the patient's stated preference not to know his diagnosis.

1 points

A large multicenter trial was conducted to test the efficacy of a new screening test to confirm exposure to a viral disease of Asian origin. There were two groups of adults: one group had been exposed to the disease and the other had not. There were 600 adult men and women in each group. The mean age for each group was 35. Given the standardized 2 X 2 table below, which of the following options reflects the study group in a cohort study design?

	Disease Present (D+)	Disease Absent (D-)	Totals
Exposed (E+)	a	b	a + b
Non-Exposed (E-)	c	d	c + d
Totals	a + c	b + d	

1. a + c
2. c + b
3. a + b ✔
4. c + d
5. (a + c) + (c + d)

INCORRECT ✖

The correct answer is 3.

Summation of a + b represents the cohort involved in a prospective study group. In cohort designs, the investigator first identifies a study group of individuals who have common characteristics (cohort). Some of these will be exposed to a proposed risk agent for disease, while another group will not. The two are observed forward in time for the development of disease. The investigator then establishes the extent to which the disease develops in the two groups. The group a + b represents the cohort (i.e., the study group), while c + d **(Choice 4)** represents the control.

(Choice 1) represents the retrospective study group, which is studied backward in time from the point of disease to the point of exposure. Note that in a prospective study, one can determine the incidence of the disease, but this is not possible in the case of a retrospective study.

(Choices 2 & 5) The sums c + b and (a + c) + (c + d) have no statistical value, because they represent two diverse groups. The cohort who are disease free after exposure are represented by b, while c represents the control (non-exposed) group who develops disease.

1 points

A 30-year-old woman visits her family physician for a routine physical e During her interaction with him, she stated that she had unprotected sex with a bisexual male about 6 months previously. At this time, she did not suffer from any tiredness, weakness, fever, or untoward health problems. However, she was concerned that she may have contracted acquired immune deficiency syndrome (AIDS) during that encounter. She felt that an AIDS test would be appropriate to assuage her fears. Which of the following parameters described in the standard 2 X 2 table below should be fulfilled by the test that was ordered by the physician?

	Disease Present	Disease Absent	Totals
Exposed to infection	a	b	a + b
Not exposed	a	d	c + d
Totals	a + c	b + d	

1. The value of d must be much less than that of c.
2. The value of d must be much greater than that of b.
3. The value of a must be much greater than that of c. ✔
4. The value of d must be much less than that of b.
5. The value of a must be much greater than that of b.

INCORRECT ✖

The correct answer is 3.

In the case presented, the physician would first order a screening test, namely the enzyme-linked immunosorbent assay (ELISA) test (aka, enzyme immunoassay [EIA]), which is about 99.5% sensitive (i.e., it usually gives a positive value in the presence of serum samples containing the human immunodeficiency virus [HIV]). High sensitivity is the key feature required of a screening test. In the above 2 X 2 table sensitivity is mathematically defined as ala + c, where a = true positives (i.e., individuals with the disease who test positive) and c = false negatives (i.e., individuals who have the disease who test negative). To have a high degree of sensitivity, a must be much greater than c. For example, when c = 0 (i.e., when there are no false-negatives [FNs]), ala + c = 1 (i.e., 100% of the patients with the disease will test positive, or the test is 100% sensitive). However, this says nothing about the number of false-positives (FPs) (b). If b = 0, there are no FPs. Although the ELISA is highly sensitive, it is not very specific. It provides a large fraction of FPs, or in terms of the 2 X 2 table, b is a significant, finite number.

(Choice 1) Negative predictive value is defined as the probability that a patient who did not have the disease would test negative, or: dlc + d. In this case, if c = 0, the negative predictive value would be 100%. The odds ratio is a measure of the probability that a positive test result would prove that the patient actually has the disease, or ala + c blb + d.

Stated in words, the likelihood ratio is the true-positives (TPs) divided by all of the diseased cases, which, in turn, is divided by the FNs divided by the negatives. The likelihood of a positive test result being 100% dependable will then occur when c = 0 (no FNs) and when d = 0 (no FPs). The prevalence is simply a measure of the proportion of individuals with the disease in the total population. In terms of a 2 X 2 table, the negative + false-positives divided by the whole sample equals the fraction of positive cases in that particular population at that particular time. Mathematically, this is stated as a + cla + b + c + d.

(Choices 2 & 4) In testing for HIV, a positive ELISA result would typically be followed by a Western blot test. The ELISA is used as a sensitive screening test, and the Western blot test as a specific confirmatory test. A highly specific test is one that provides few FP results (i.e., one in which b approaches 0). Specificity is conventionally defined in terms of the ratio dld + b. Thus, when b = 0, dld = 1 (i.e., 100% of all individuals without the disease will test negative) **(Choice 2)**. There is a limit regarding the lack of specificity that a screening test can tolerate. If d = 0, all individuals without the disease will test positive, and the test will have no specificity (i.e., it will be of no value). If d = bl2, one-half of the normal individuals will test positive; therefore, the test could possibly have value as a screening test **(Choice 4)**.

The practical value of a screening test depends on several factors, including relative cost and the population being tested. Based on these factors, the ELISA is a practical screening test. The ELISA is easier to perform, less time-consuming, and significantly less expensive than the Western blot test. Because the ELISA has a very low specificity, it is only used when there is reason to believe that the person was exposed to the virus. In such populations, the total fraction of normals is lower; therefore, the specificity is higher. This principle carries over to all screening procedures.

(Choice 5) Other parameters conventionally described by a 2 X 2 table include the positive predictive value, the negative predictive value, the odds ratio, and the prevalence. The positive predictive value is defined as the probability that a positive test result would actually be associated with a patient who has the disease. In mathematical terms, this is expressed as: ala + b. Thus, as in **(Choice 5)**, where a is much greater than b, if b = 0, the positive predictive value would be 100% (i.e., all cases would be true positives).

1 points

While perusing a research article, a student came across a data set composed of the numbers 7, 5, 8, 2, and 8. Which of the following sets of numbers provides the correct range, mean, median, and mode in the appropriate order?

1. 2, 7, 8, 6
2. 8, 8, 7, 5
3. 6, 7, 6, 8
4. 5, 5, 7, 8
5. 6, 6, 7, 8 ✔

INCORRECT ✖

The correct answer is 5.

The range is the difference between the largest and smallest values; in this set it is 8 2 = 6.

The mean is equivalent to the average; that is: it is equal to the sum of all the numbers divided by the number of numbers. In this list that is: 7 + 5 + 8 + 2 + 8 / 5 = 6

The median is the "middle" value in the list of numbers; i.e., it is the number equidistant in order from the lowest and highest value in a sequentially ordered set of numbers. The numbers in this question arranged sequentially are 2, 5, 7, 8, 8. The middle number is 7 because there are two numbers of lesser value and two numbers of greater value. Hence, the median is 7. The mode, on the other hand is the most frequently occurring number, which in this set is 8; it occurs twice. Therefore, the answer choice that correctly states the mean, median, and mode (numbers 6, 6, 7, and 8) is **(Choice 5)**.

(Choices 1,2,3 & 4) All choices are wrong. They represent the wrong numbers and/or the proper numbers in the wrong order.

1 points

A 30-year-old Caucasian man from Scotland met and married a 26-year-old French Caucasian woman. Both of them were healthy and lived a healthy lifestyle. They moved to California after their marriage and worked in the entertainment industry in Hollywood. Three years later, the woman gave birth to a child who had respiratory and gastrointestinal problems. The child was diagnosed with cystic fibrosis. Both parents are convinced that the disease was not inherited and are not concerned that subsequent children will have a substantial chance of acquiring the disease. They support this contention by pointing out that they are not related and there is no history of cystic fibrosis in either of their families. Which of the following statements is most likely true?

1. The case described is a new mutation.
2. The degree of penetrance is low; therefore, some of their relatives were genetically affected but did not express the disease.
3. Both parents are carriers and each subsequent child will have a 25% chance of expressing the disease. ✔
4. It would be easy to determine if they are carriers using simple physiologic methods.
5. DNA fingerprinting can be used to determine whether or not each parent carries the unique mutation that causes cystic fibrosis.

INCORRECT ✖

The correct answer is 3.

Most recessive diseases (e.g., cystic fibrosis) will present in isolated individuals. When two carriers of a recessive disease have children, those children will have a 25% chance of expressing the disease.

(Choice 1) Although new mutations are a possibility, most often it will turn out that both parents are carriers. It is only in families with many siblings and/or cases with obvious consanguinity that recessive inheritance can be clearly identified on the basis of family relationships alone. As long as outbreeding predominates in a family, the chances of a recessive disease being expressed are remote, largely depending on the incidence in the general population. The recessive gene will be carried from generation to generation, only becoming evident when it shares an allelic site with a second mutated gene. That is, excluding a new mutation, there is zero chance of a recessive disease being expressed if a normal individual mates with a carrier.

(Choice 2) Penetrance is a term primarily used in conjunction with dominant disorders and is a measure of the chance of such a disorder not being expressed clinically. There is often variability in dominant disorders because dominant disease most often involves proteins having a structural function, as opposed to recessive disorders, which most often involve an enzyme. Thus, you can analogize a dominant genetic defect to a house in which every other normal 2 X 4 stud is replaced by a l X 2 stud. Externally, the two may be indistinguishable, until an environmental stress is applied.

(Choice 4) Currently, it is often easy to identify carriers by simple biochemical techniques. However, there is no simple physiologic method available permitting the identification of carriers of cystic fibrosis.

(Choice 5) Even analysis involving DNA fingerprinting is complicated by the fact that more than 400 different mutations in the cystic fibrosis gene have been identified; that is, it is not caused by a unique mutation.

1 points

Tasmania, Australia, population 515,000 (as of 2014), has an annual rate of 15 new cases of acute leukemia. A leading pharmaceutical company decided to try an experimental medication for the treatment of the disease. Patients with confirmed acute leukemia were selected from this population. Of the 300 known patients with cases of leukemia, 200 were female and 100 were male; all patients had received treatments earlier with established therapies. The treatment trial was double-blinded. The new treatment was received by 150 patients, whereas 130 received a placebo. Twenty patients dropped out of the study due to noncompliance or non-acceptance. The trial clearly showed that the new treatment extended the life span of the patients with the disease and increased the length of remission. It did not, however, cure the disease. From this study, one could conclude that treatment with this new drug caused which of the following?

1. Increased incidence of acute leukemia
2. Increased prevalence of acute leukemia ✔
3. Decreased incidence of acute leukemia
4. Decreased prevalence of acute leukemia
5. Decrease in both the incidence and prevalence of acute leukemia

INCORRECT ✖

The correct answer is 2.

The study clearly demonstrated an extension in the lifespan of patients with acute leukemia. Thus, there will be a larger number of patients with active leukemia at any given point in time. In other words, the prevalence will increase .

There is no evidence that the drug influences the rate at which new cases of acute leukemia occur, which is the definition of incidence. Thus, it cannot be said that the incidence either increases **(Choice 1)** or decreases **(Choice 3)**. Based on the aforementioned explanation, it is apparent that the other choices, namely, 4 and 5, are incorrect.

1 points

An African American couple, with no known family history of sickle cell disease, wants to know the probability that their child will have sickle cell disease. To obtain a more precise assessment, a hydrolysate of their red blood cells (RBCs) is subjected to electrophoresis. The man has no hemoglobin S (HbS), but the woman has an obvious HbS band. Given that the carrier rate among African Americans is approximately 8%, or 1 in 12, the likelihood that their child will have sickle cell disease would most likely be:

1. 0 ✔
2. 1/4
3. 1/144
4. 1/576
5. 1/1,036

INCORRECT ✖

The correct answer is 1.

Patients with sickle cell disease are homozygous for HbS. Because in the case described only one potential parent has the HbS allele, the only way their child could inherit two HbS genes is if one of the father's normal hemoglobin (Hb) genes underwent a new mutation in a sperm cell, an extremely unlikely event. Therefore, their child does not have a reasonable chance of inheriting the disease. However, there is a 1:4 chance that their child would be a carrier. Such heterozygous carriers may have mild symptoms and are said to have the sickle cell trait.

(Choice 2) The probability that two heterozygous carriers of the trait will have a child with the disease is 1:4; that is, 25% of their children will have the disease; whereas 50% will have the trait and another 25% will be normal.

(Choice 3) Assuming there is no knowledge of family histories or Hb patterns, (1/144) represents the probability that two carriers will meet. That is, the carrier rate among African Americans is approximately 1 in 12 and 1/12 X 1/12 equals 1/144.

(Choice 4) (1/576) corresponds to the likelihood of a child having the disease if two African Americans having no knowledge of family histories or Hb patterns had children. As indicated in **(Choice 3)**, the random chance of two African American heterozygotes meeting is 1/144. Since only 25% of their children will have the disease (see **(Choice 2)** above), those having the disease will equal 1/144 X 1/4, or 1/576.

(Choice 5) is not a sensible representation of the probability of a child inheriting sickle cell anemia.

1 points

A 30-year-old man reports to his physician's office concerned about his well-being because his close friend recently had an acute myocardial infarction (MI). The patient denies a history of chest pain, palpitations, shortness of breath, or swelling of the feet. He does not smoke or consume alcohol, and there is no family history of cardiac disease. His father died of carcinoma of the colon 5 years previously, at the age of 76, and his 74-year-old mother has diabetes, which is controlled with oral medication. Physical examination reveals a 173-cm (68-in) tall white male weighing 81 kg (180 lb), who is not in acute distress. His vital signs are as follows: pulse, 80/min (regular); respirations, 18/min; blood pressure, 128/80 mm Hg. Results of examination of the cardiovascular system and the rest of his physical examination are normal. The patient requests tests to exclude the possibility of him having coronary artery disease (CAD). Which of the following would be the most appropriate next step in the management of this patient?

1. Order an immediate resting electrocardiogram (ECG) and, if the result is positive, perform an exercise ECG.
2. Immediately order both a resting ECG and an exercise ECG.
3. Schedule the patient for routine ECG screening.
4. Explain to the patient that ECG screening is unnecessary in an asymptomatic patient. ✔
5. Order a total body computed tomography (CT) scan.

INCORRECT ✖

The correct answer is 4.

There is insufficient evidence to recommend for or against screening middle-aged and older men and women for asymptomatic coronary artery disease (CAD) using resting, ambulatory, or exercise electrocardiograms (ECGs). Ischemic heart disease is the leading cause of death in the United States, accounting for approximately 500,000 deaths per year. It is estimated that approximately 1.5 million people have an acute myocardial infarction every year, and one-third will not survive the acute event. Nonetheless, routine ECG screening as part of the periodic health visit is not recommended for asymptomatic children, adolescents, or young adults. Therefore, in the case scenario, an ECG would be appropriate for a 30-year-old only if the patient had symptoms (e.g., chest pain) or a positive risk factor. Clinicians should emphasize proved measures for the primary prevention of CAD (e.g., reducing hypertension, lowering the blood cholesterol level) and counsel patients to avoid using tobacco, to consume a healthy diet, and to undertake regular aerobic physical activity.

(Choices 1,2,3 & 5) Accordingly, **(choices 1, 2, and 3)** are incorrect. Although total body computed tomography (CT) scans are the rage in some quarters, there is no evidence indicating that they should be recommended for screening for CAD **(Choice 5)**.

1 points

A 62-year-old woman suffers a myocardial infarct (MI) while being examined in her physician's office. He attempts cardiopulmonary resuscitation, administers oxygen, and a bolus of epinephrine, all to no avail. The woman dies. Her family files a malpractice suit. For this claim to have merit, which of the following must the family prove about the doctor?

1. He was improperly educated.
2. He intended to cause the patient harm.
3. He committed a crime.
4. He overcharged the patient for the care given.
5. He deviated from the established standard of care. ✔

INCORRECT ✖

The correct answer is 5.

Malpractice is generally defined as deviation from the established standards of professional care (i.e., professional negligence). For a claim of malpractice, the patient must prove that the doctor was negligent by deviating from the established standard of care and that this deviation caused injury (not necessarily deliberately). Additionally, the physician has to have a duty to the patient because of their professional relationship.

(Choices 1 & 4) Neither the doctor's education nor how much he charges the patient is related to malpractice claims.

(Choices 2 & 3) Malpractice is a civil wrong (a tort), not a crime, and intent to cause harm does not have to be shown.

1 points

An article concerning the relative ability of a new drug to lower systolic blood pressure describes a study in which age and ethnicity-matched male patients are divided into three groups. One group receives a well recognized drug at a standard dose. The other two groups receive the new drug, but at different doses. At the end of 30 days, the systolic blood pressure of each group was determined, and the significance of the differences in the mean values was tested statistically. Which of the following statistical tests would provide the greatest confidence in the results?

1. Student's t-test
2. Analysis of variance ✔
3. Correlation coefficient
4. Chi-squared test
5. Logistic regression

INCORRECT ✖

The correct answer is 2.

The question relates to assessing differences among three groups of a continuous variable, which in this question is systolic blood pressure. To assess the significance of differences in data derived from three or more groups it is necessary to use analysis of variance.

(Choice 1) If the comparison were between only two groups, a Student's t-test would be correct.

(Choice 3) assesses the strength of association, not the differences between groups.

(Choice 4) assesses differences among groups of categorical variables.

(Choice 5) is used to assess a categorical outcome for a continuous predictor.

1 points

A 28-year-old woman who works as a computer analyst in a large company and does not exercise at all is concerned about the possibility of developing a myocardial infarction. This stems from the fact that her oldest brother, who is 42 years old, has already undergone coronary bypass surgery, and her mother died at 50 years of age after an acute myocardial infarction. She denies a history of chest pains, palpitations, or shortness of breath. The patient does not smoke, does not consume alcohol, and does not take any regular medication. Physical examination reveals an obese woman who is 163 cm (64 in) tall and weighs 112 kg (247 lb). Her vital signs reveal the following: heart rate, 92/min; respirations, 18/min; blood pressure, 125/90 mm Hg. A serum lipid panel yields the following values: total cholesterol, 250 mg/dL (normal, <200 mg/dL); high-density lipoprotein (HDL), 32 mg/dL (normal >60 mg/dL); low-density lipoprotein (LDL), 160 mg/dL (normal, <130 mg/dL), triglyceride (TG), 185 mg/dL (normal, <150 mg/dL), and very-low-density lipoprotein (VLDL), 260 mg/dL (normal <125 mg/dL). Based on this information, which of the following is the best step in the management of this patient?

1. Start her immediately on 3-hydroxy-3-methylglutaryl-coenzyme A (HMG-CoA) reductase inhibitors.
2. Start her on bile acid sequestrants and exercise.
3. Commence a 6-month diet and exercise plan. ✔
4. Start her on the American Heart Association step 2 diet and exercise plan.
5. Commence a combination of niacin, exercise, and diet.

INCORRECT ✖

The correct answer is 3.

Despite the fact that this woman is young and has no signs or symptoms of coronary artery disease (CAD), her obesity, lipid profile, and family history put her at risk for early disease; therefore, she is a prime subject for preventive measures. Regardless of the serum cholesterol level, high-density lipoprotein (HDL) level, or any other relevant laboratory value, the first step in management for primary prevention is 6 months of diet and aerobic exercise.

(Choice 4) The patient should always begin with the American Heart Association step 1 diet, not the step 2 diet. If after 3 months there is no change in lipid profile, the patient should be changed to the step 2 diet.

(Choices 1,2, & 5) Pharmacologic intervention (choices A, B, and E) should be considered only after 6 months of aerobic exercise and diet.

1 points

A 79-year-old man sees his family practice physician for a routine checkup concerning his diabetes. His physician tells him that he appears to be taking good care of himself; his HbAc1 level is only 6.2% and his lipid profile is acceptable, suggesting he is not at risk for a heart attack. He then adds that he thinks it would be wise for him to have a bone density test to see if he possibly has osteoporosis. The patient objects, saying he heard osteoporosis is a woman's disease, so why should he worry about it. Which of the following statements accurately reflects the truth about osteoporosis in men?

1. Age-related osteoporosis in men is due to decreased ability to calcify bone matrix.
2. Mortality rates after hip fractures are greater in women than in men.
3. Loss of estrogen in aging men cannot be a factor that increases the risk of fractures.
4. The prevalence of osteoporosis in men is about 20% that of women. ✔
5. The increase in rates of osteoporosis among aging men is primarily due to decreased ability to absorb vitamin D.

INCORRECT ✖

The correct answer is 4.

Osteoporosis is the most common metabolic abnormality of bone in the. Consequently, the prevalence of osteoporosis in males is about 20% that of females. Moreover, 20%-30% of hip fractures occur in men, who also have twice the first-year post-fracture mortality rate as do women. Thus, **(Choice 2)** is incorrect. Additionally, approximately 30% of men lose their independence and move into a nursing facility or into a relative's home. Unlike women, the onset of osteoporosis in men does not have a defined beginning point, such as menopause, but the rate of bone loss gradually increases with age and because physicians in general do not look for it the condition it is likely under diagnosed. In women, the relationship between the onset of menopause and the accompanying decrease in estrogen production clearly points to the decrease in estrogen levels as the primary underlying mechanism responsible for the rapid development of osteoporosis. Although this does not occur in males, estrogen levels also decline with age in males, and some investigators postulate that this decline is responsible for the age-related loss of bone in males. Thus, **(Choice 3)** is incorrect.

Circulating testosterone in both sexes supports the production of estradiol by aromatization of testosterone in bone as well as in other estrogen-dependent tissues. In premenopausal women, this local production of estrogen is minuscule relative to the amounts produced by the ovaries, but after menopause, this becomes the major mechanism of estrogen production and because testosterone levels are low, estrogen production in various tissues may be suboptimal; in bone, this upsets the normal equilibrium between bone synthesis and bone destruction, causing the rate of bone loss to exceed the rate of synthesis. Consequently, bone thins and first osteopenia and eventually osteoporosis may ensue. However, in males, this local mode is the major normal route of estrogen production throughout most of life. During the first six or seven decades of adult life, most men produce sufficient testosterone to permit sufficient production of estrogen to meet the needs of local tissues, but as testosterone production declines with age estrogen production also declines, accounting for the decline in circulating estrogen in aging males.

It is important that older males be screened for osteopenia and osteoporosis because several treatments are available that may reduce the risk of fractures. If men are hypogonadal, testosterone supplementation has been found to be beneficial for the reasons discussed above. Another treatment with a long history, albeit mainly in females, is use of bisphosphonates. A more recent development is use of teriparatide, a recombinant copy of the 34 amino acids on the N-terminus of human parathyroid hormone. Unlike the bisphosphonates, and testosterone as well, teriparatide acts to stimulate osteoblastic activity rather than inhibit osteoclastic activity. There are also a few small studies reporting that thiazide diuretics improve bone density in about 20% of males having osteoporosis and hypercalciuria; however, pharmaceutical companies are not anxious to engage in large, expensive clinical trials because these drugs are so inexpensive. Calcitonin is still another drug that theoretically should combat osteoporosis but few, if any, reliable studies have been published regarding male use of calcitonin.

(Choices 1 & 5) In osteoporosis, the organic bone matrix is deficient but the matrix that is there is fully calcified; thus **(Choice 1)** is incorrect. Although older individuals may absorb vitamin D less efficiently and are less prone to obtain as much sun exposure as younger persons, **(Choice 5)** is incorrect. In children, vitamin D deficiency is called rickets and in adults osteomalacia; in both cases, an excess of noncalcified bone matrix results in soft, malleable bones, not the fully calcified but brittle ones that characterize osteoporosis.

1 points

A 64-year-old man just completed his pre-Medicare physical and was in the process of getting an assessment from his physician. The physician informed him that basically he was in good health, but she would recommend a few things to him that would help preserve his health. First and foremost, she was glad to hear that he had given up smoking some 10 years earlier, but she felt he should modify his diet to one modeled on the so-called Mediterranean diet. She also recommended getting more exercise, at least a half hour per day at least 6 days a week. Finally, she recommended he take a baby aspirin (about 81 mg) before going to bed every night and either eating fatty fish two or three times a week or taking fish oil capsules daily. Which of the following choices best describes why aspirin and fish oil reduces the risk of heart problems?

1. Aspirin covalently binds to the cyclo-oxygenase (COX) enzymes, and fish oil contains omega-3 fatty acids that are converted to series-3 prostaglandins. ✔
2. Aspirin covalently binds to the COX enzymes, and fish oil contains omega-3 fatty acids that are converted to arachidonic acid, the major precursor of the prostaglandins.
3. Aspirin, the other nonsteroidal anti-inflammatory drugs, fish oil, and acetaminophen all block the COX enzymes.
4. Aspirin non-covalently blocks the COX enzymes, and fish oil contains omega-3 fatty acids that are converted to series-2 prostaglandins.
5. Aspirin non-covalently binds to the COX enzymes, and fish oil contains significant quantities of omega-3 fatty acids that are converted to series-1 prostaglandins.

INCORRECT ✖

The correct answer is 1.

Several clinical studies report that regular consumption of fatty fish or fish oil supplements reduces the risk of heart attacks, sudden death, and deaths due to any cause in people with histories of heart attacks, whereas other clinical studies have shown that a daily dose of low-dose aspirin helps lower the risk of a heart attack for people otherwise at risk. Most patients in these studies were also using standard heart drugs, suggesting that the benefits of aspirin and fish oils may add to the effects of other therapies. The effects of both aspirin and fish oil are in large part mediated by their effects on prostaglandin (PG) metabolism. Aspirin inhibits synthesis of series 2 PGs by covalently binding to the cyclo-oxygenase (COX) isoenzymes; this reduces platelet clumping, thereby helping to prevent or reduce formation of blood clots. Fish oil contains long-chain omega-3 fatty acids that are converted to series 3 PGs, which as a whole counter the action of series 2 PGs and inhibit inflammation.

(Choices 2,3 & 4) Although it is true that aspirin covalently binds to the COX isoenzymes that convert arachidonic acid to PG H_2, which then serves as an intermediate to several products including the series 2 PGs, PG E_2, and PG D_2, as well as to several others of the eicosanoid family, it is not true that fish oil contains omega-3 fatty acids that are converted to arachidonic acid **(Choice 2)**. The relatively unique fatty acids of importance in fish oils are eicosatetraenoic acid, a 20-carbon quintuple unsaturated omega-3 fatty acid and docosahexaenoic acid, a 22-carbon omega-3 fatty acid with six double bonds. These are potential precursors to series 3 PGs, which tend to counterbalance the inflammatory effects of the series 2 PGs synthesized via the arachidonic acid pathway and also appear to play important roles in the stabilization of cell membranes and central nervous tissue white matter. These long-chain polyunsaturated fatty acids are obtained preformed in fish oil but can in theory be synthesized by mammals, starting with u-linolenic acid, an 18-carbon triple unsaturated omega-3 essential fatty acid primarily found in flax seed and walnuts; the u-linolenic acid is then desaturated and elongated in a series of reactions that does not include arachidonic acid. However, it generally is conceded that this latter series of reactions is not able to provide optimal amounts of the longer polyunsaturated fatty acids. Although aspirin and the other nonsteroidal anti-inflammatory drugs block the COX enzymes, acetaminophen has a different mode of action **(Choice 3)**. The prevailing hypothesis is that there is a third COX isozyme located in the brain that is acetaminophen sensitive. Aspirin covalently, not non-covalently, blocks the COX enzymes, and fish oil does not contain omega 3-fatty acids that are converted to series 2 PGs **(Choice 4)**.

(Choice 5) Series 1 PGs have been called the "good" PGs, but fish oil does not contains significant quantities of omega-3 fatty acids that are converted to series 1 PGs. The series 1 PGs are diverted off of the arachidonic pathway before the latter is produced. The immediate fatty acid precursor is di-homo-v-linolenic acid, a triple-unsaturated C-20 omega-6 fatty acid, which in turn is formed from v-linolic acid, a triple-unsaturated C-18 omega-6 fatty acid, found in high concentration in evening primrose, borage, and black currant oils, and recommended by some advocates of alterative Medicine to ease menstrual cramps and relieve itchy skin. Series 1 PGs may also lower blood pressure.

1 points

A 28-year-old female, para 0 gravida 1, underwent routine sonography at gestational age 18 weeks. The ultrasound revealed a twin pregnancy, one of which was male, the other female. The fetuses were appropriate for gestational age, and no congenital deformities were detected. The woman did not have a history of bleeding diathesis, but her husband was known to suffer from hemophilia A. The woman's mother is of Scottish descent, and her father, a Ukrainian Jew. Both of her parents are alive and in their 70s. Her mother suffers from hypertension, and the father from diabetes mellitus and hyperlipidemia. Neither suffers from bleeding diathesis. Two of her paternal uncles died at a young age from complications associated with hemophilia. Assuming both parents carry the normal number of chromosomes, which one of the following statements about the fetuses she is carrying is factual?

1. The female fetus has a 50% probability of being a carrier but no possibility of expressing the disease; the male, on the other hand, has no possibility of being a carrier but a 50% probability of expressing the disease.
2. Both the female and the male fetuses have no prospect of either being carriers or expressing the disease.
3. The female fetus has a 75% probability of being a carrier and a 25% probability of expressing the disease; the male fetus cannot be a carrier, but has a 50% possibility of expressing the disease.
4. The female fetus has a 50% likelihood of being a carrier, and a 50% likelihood of expressing the disease; the male fetus, on the other hand, has no chance of being a carrier, but a 50% chance of expressing the disease.
5. The female fetus has a 100% chance of being a carrier, but no possibility of expressing the disease; the male fetus has no chance of either being a carrier or of expressing the disease. ✔

INCORRECT ✖

The correct answer is 5.

Hemophilia A is a sex-linked recessive disease carried on the X chromosome. Normally, males inherit an X chromosome from their mother and a Y chromosome from their father, while females inherit one X chromosome from their mother and the other from their father. Therefore, a male cannot pass an X-linked disease to a son, but has a 100% chance of passing the defective gene to a daughter.

In the genealogy described, there is no reason to suspect that the mother has a defective gene. Despite the fact that her paternal uncles had hemophilia, her father is a healthy male; therefore, the solitary X chromosome that he possesses is normal. In addition, the fact that the woman's mother is of Scottish ancestry and her father is a Ukrainian Jew eliminates consanguinity in that generation. This heritage reduces the chances of the twin's mother carrying a recessive gene even further. On the other hand, the father suffered from hemophilia A; as a consequence, his X chromosome carried the mutant gene. Therefore, the female fetus has a 100% chance of being a carrier, but she will not express the disease, and the male fetus will neither be a carrier nor will he express the disease.

(Choices 1 & 2) If the mother was a carrier and the father did not have the disease, the male fetus would have a 50% chance of expressing the disease, but none of being a carrier. The female fetus on the other hand, would have a 50% chance of being a carrier, but have no chance of expressing the disease. If both parents carried normal X genes, neither the female nor the male fetus would have a possibility of being a carrier or expressing the disease.

(Choice 3) is highly improbable because if one X chromosome is affected, she has a 50% chance of passing it on; if both are affected, she has the disease herself. To have a 75% chance of being a carrier, she would require three X chromosomes, two of which would have to be abnormal. If the father had the disease and the mother was a carrier, the female fetus would have a 50% probability of being a carrier (one normal X gene from the mother and one defective X gene from the father) and a 50% probability of expressing the disease (one defective X gene from each parent).

(Choice 4) The male fetus would have a 50% likelihood of expressing the disease, but none of being a carrier.

1 points

In response to a community-wide influenza A epidemic, residents of a nursing home were vaccinated with inactivated (killed virus) influenza vaccine containing antigens identical or similar to the influenza A and B viruses circulating the previous year. Six days later, an ambulatory and sociable 74-year-old resident developed a temperature of 38.8°C (102°F), severe headache, myalgia, nausea, and weakness over a 24-hour period. Which of the following would be the most appropriate response on the part of the nursing home administration?

1. Take no further prophylactic measures, because the residents have already been vaccinated.
2. Prophylactically treat all residents with ampicillin.
3. Prophylactically treat all residents with amantadine or rimantadine. ✔
4. Attempt to isolate all residents with whom the patient had been in contact during the past week.
5. Give all residents a booster influenza vaccination to ensure that their antibody titer is high.

INCORRECT ✖

The correct answer is 3.

The index case is most likely suffering from influenza A. Because the infected patient is ambulatory and sociable and living in a closed community, the risk of spreading the disease among the other residents is very high. In addition, the mortality rate and the incidence of serious complications are increased in the elderly. Therefore, the nursing home medical staff should take advantage of every preventive measure available. Assuming a vaccine is prepared from viruses similar to those responsible for the epidemic (which it was; in this case), prophylactic vaccination has been demonstrated to reduce the number of infected individuals by 50%–80%. Moreover, the severity of complications among those who still get infected is, in general, reduced. However, it takes approximately 2–4 weeks after vaccination for antibody levels to build up to an effective level, so the vaccination received 6 days ago will be ineffective. Therefore, other prophylactic measures should be considered (**(Choice 1)** is wrong). Administration of either amantadine or rimantadine has been shown to be an effective prophylactic measure in the prevention of influenza A, which has little or no effect on the immune response to the virus or vaccine. Therefore, all residents should be treated with one of these drugs.

(Choice 2) Treatment with ampicillin or any other antibiotic would be ineffective against a viral infection.

(Choice 4) Isolation of contacts would be a difficult and likely futile exercise.

(Choice 5) The residents were just immunized, so administration of a booster shot would not be appropriate.

1 points

An institute for female felons conducted the following study to confirm that sodium restriction lowered systolic blood pressure in their mix of patients. They divided 300 prisoners into two 150-person groups that are matched with respect to age, ethnicity, and approximate blood pressure values; all were in the prehypertensive range (systolic pressure between 130 and 139 mm Hg, diastolic pressure between 80 and 89 mm Hg), none is diabetic, and none is taking any relevant medication. One group was put on a sodium-restricted diet permitting 2,000 mg of sodium daily. The other group was permitted to consume the usual prison fare, which provided an average of 5 g of sodium daily. (The typical daily consumption in the Australia is between 4 and 6 g [175–260 mEq] daily). After 2 months on these diets, the difference in mean diastolic blood pressure among the 150 subjects in the low-salt diet group and the 150 subjects in the non-restricted-salt group is 5 mm Hg, a difference significant at a P value of .04851. Which one of the following statements about the two groups is true?

1. The blood pressure difference is clinically significant.
2. The chance that an individual would benefit from a low-salt diet is less than 0.05%.
3. It is unlikely that random variation accounted for the difference in diastolic blood pressure between the two groups. ✔
4. Increasing the number of subjects would tend to change the P value from significant to non-significant.
5. To show a statistically significant difference, the sodium-restricted group should have been limited to an intake of less than 1,000 mg of sodium per day.

INCORRECT ✖

The correct answer is 3.

In biologic systems, a P value of less than .05 (i.e., the probability that random variation accounted for the difference between the two groups is less than 5 times out of 100) is commonly considered statistically significant; thus, a value of .04851 is statistically significant, meaning that it is unlikely that random variation accounted for the difference in diastolic blood pressure between the two groups.

(Choice 1) However, as important as this is, without further follow-up studies concerning the health of the participants, it does not prove that this effect is clinically significant.

(Choice 2) is incorrect for two reasons. First, clinical benefit cannot be determined on the basis of two sets of numbers that do not directly refer to a health-based parameter (e.g., Were there significantly fewer myocardial infarcts among the salt-restricted cohort?). Second, as the choice is worded, potential significance would decrease as the P value does; therefore, to make sense, it should say "the chance that an individual would benefit from a low-salt diet is more than 0.05%."

(Choice 4) If the number of subjects were increased (assuming that the means and the standard deviations of the groups remained the same), the P value would tend to be lower and would be more, rather than less, statistically significant.

(Choice 5) Since a 2,000 mg diet provided a statistically significant difference, it obviously is not necessary to further reduce sodium intake to prove a statistical difference. In fact, reducing sodium further is liable to be counterproductive because a diet providing 1,000 mg or less of sodium per day is difficult for most people to tolerate; thus, even in a prison population, compliance is apt to be low. In contrast, patients on a 2,000 mg daily intake for 2 3 months often adapt to this diet, may actually find excess salt to be unpleasant, and often continue to voluntarily restrict salt intake.

1 points

A laboratory test has a reference mean value of 20 mg/ dL and a standard deviation of 2. Which of the following is the range in which 95% of repeated laboratory determinations would be expected to fall?

1. 20–22
2. 18–22
3. 16–24 ✔
4. 14–26
5. 19–21

INCORRECT ✖

The correct answer is 3.

Assuming a normal distribution, the mean ± 2 standard deviations describes the range in which it can be expected that 95% of repeated observations or determinations would fall. In the scenario described (with a mean of 20 and a standard deviation of 2), the normal range would be 20 ± 4, or 16 to 24.

(Choices 1,2,4 & 5) are incorrect ranges.

1 points

A patient has Alzheimer disease, which has advanced to the extent that he can no longer make rational decisions but still enjoys walking in the neighborhood with his caretaker. However, he now has difficulty ambulating because of a problem with his knee. His physician believes his knee problem is due to a cartilage injury and wants to conduct a magnetic resonance imaging study to determine if surgery is needed and, assuming it is, to follow up with appropriate surgery. Which of the following represents the procedure that takes precedence prior to starting treatment of the knee?

1. Follow directions the patient expressed in a living will.
2. Obtain written permission from a person named in a durable power of attorney. ✔
3. Obtain written permission from the director of the patient's managed care organization.
4. Invoke the state's involuntary treatment law.
5. Have the patient sign an informed consent form.

INCORRECT ✖

The correct answer is 2.

Individuals commonly wish to assure they will have a voice in determining what medical treatment they are to receive if they become mentally incapacitated. To do this, they create a legal document called an advanced directive. There are two not mutually exclusive types of advanced directives: living wills and durable powers of attorney for health care. In the latter case, a person while demonstrably of sound mind draws up a legal document in which another person is named to make medical decisions for the patient should he or she become mentally incompetent. The person named in such a durable power of attorney becomes the legal surrogate for a mentally incapacitated patient, and the physician must turn to him or her for permission to perform any medical procedure.

(Choice 1) A living will, the other type of advanced directive, is a legal document that persons, while still of sound mind, have drawn up to express their wishes for medical treatment should they become mentally incapacitated. Since nobody can predict if they will become mentally incapacitated and what medical problems they will have if they do, such a document needs to be drawn up in general terms (e.g., "I wish to have every conceivable life support measure available used to keep me alive before I am declared dead"). Specifics, such as a knee operation, have to be dealt with as they arise, by a rational being namely, the person named in the durable power of attorney.

(Choices 3,4 & 5) The director of the patient's managed care organization may have some practical input in determining the cost benefit ratio in providing health care, but has no legal right to determine whether or not a patient receives any particular treatment. A state's involuntary treatment law could only be invoked when a patient is a danger to self or others. For a patient's signature on an informed consent form to have a legal impact, he or she must be of sound mind. If the patient is mentally incapacitated, the person named in a durable power of attorney has the right and obligation to sign, or not sign, the informed consent form. In the absence of a durable power of attorney, a close relative or, in extreme cases, a state representative may sign the informed consent form. However, it is not unheard of for persons to quarrel over who has that right and what should be done, particularly if money is involved in the outcome.

1 points

A 16-year-old boy died yesterday. His father died from cancer before he was born, and his mother died from cancer a week ago, leaving the boy in a depressed state. He confessed to his school psychologist that he wasn't sure life was worth living. However, even prior to his mother's death, he engaged in several antisocial activities. He was a member of a street gang that had recently been conducting a violent turf war with a rival gang; he smoked marijuana, snorted freebase cocaine, and loved to drag race while high. Judging by public health statistics among adolescents and young adults between the ages of 15 and 24 years, his death yesterday most probably resulted from which one of the following?

1. Suicide
2. Homicide
3. Drug overdose
4. Automobile accident ✔
5. Cancer

INCORRECT ✖

The correct answer is 4.

Accidents are the most common cause of death in youth between the ages of 15 and 24 years, and 75% of these accidents occur in automobiles. Further increasing the odds he would die in a motor accident is the fact that he loved to drag race while high.

(Choices 1 & 2) Generally speaking, suicide and homicide are the second and third leading causes of death among such youth. Although suicide is a major factor in early death in this age group, and suicidal thoughts are common, actual suicides are uncommon because the overall death rate in this group is so low. In some surveys, homicide is second, and suicide is third; this appears to reflect the demographics of the group surveyed. In most middle and upper-class neighborhoods, adolescent homicide is almost unheard of; in contrast, homicide is all too common in neighborhoods permeated by gangs.

(Choice 3) is a less common cause of death in youth than accidents, suicide, and homicide, although use of drugs-alcohol in particular- is a major contributor to deaths in automobile accidents.

(Choice 5) In this age group, death from any disease, including cancer, is rare.

1 points

A nonsmoking 42-year-old woman consults her physician after finding a lump in her right breast. Upon examination, the physician finds a painless, freely mobile, and well-circumscribed spherical growth with a rubbery consistency. On the basis of this examination, he tells her that he is over 99% sure that this lump is due to benign fibrocystic disease, but just to make sure he would recommend a needle biopsy. The woman breathes a sigh of relief; she was very worried because her mother died from metastatic breast cancer at the age of 38 years. This was particularly tragic because, as a girl and young woman, her mother had endured a life of hardship after her Jewish family escaped from eastern Poland when the Nazis invaded in 1939. She asks the doctor about her chances of developing breast cancer. Which of the following choices represents the most accurate assessment?

1. Since she is an otherwise healthy non-Hispanic white woman, she has about a 13.3% chance of developing a mammary cancer.
2. She has at least a 66.5% chance of developing breast cancer. ✔
3. Because she is older now than her mother was when she died, she has little risk of developing an inherited form of cancer.
4. Since she has fibrocystic disease, the probability of ever developing a breast malignancy is reduced.
5. Since she doesn't smoke, the probability of developing breast cancer is reduced.

INCORRECT ✖

The correct answer is 2.

Excluding skin cancers, breast cancer is the most common neoplasm in females, although more females now die from lung cancer. The Cancer Society reported that, in 2008, the lifetime chance of non-Hispanic white women developing breast cancer was 13.3%; thus, 1 in 7.5 women in this cohort developed the cancer **(Choice 1)**. However, this woman has at least one additional risk factor: her mother a first-degree relative also developed breast cancer. Having a first-degree relative with breast cancer increases the risk another fivefold. Thus, this patient's minimal risk is 13.3 X 5 or 66.5%. Since she is an Ashkenazi Jew (her Jewish family comes from Eastern Europe), her risk might even be greater since this ethnic group has a high incidence of BRCA1 and BRCA2 gene mutations, which can increase the lifetime risk to almost inevitable. In fact, since her mother died relatively young from breast cancer, the chances she had one of these cancer-causing mutations is high, and the physician might well recommend that this patient undergo genetic screening.

(Choice 3) Because she is older now than her mother was when she died, (she has little risk of developing an inherited form of cancer) is not true. In fact, the risk of cancer increases with age; the incidence increases particularly rapidly between the ages of 40 and 55 years, after which the risk rate remains constant.

(Choice 4) (having fibrocystic disease reduces the probability of ever developing a breast malignancy) is not true; in fact, it increases the risk slightly.

(Choice 5) Breast cancer is one of the few cancers that doesn't seem to be increased by smoking, thus the fact that she is a nonsmoker doesn't reduce her chance of developing cancer.

1 points

A random sample of 100 female students is selected from the freshmen class of a large university. The women are followed prospectively over 4 years to see if use of oral contraceptive pills is associated with a decrease in ovarian cysts. Which of the following is the proper name of this study design?

1. Cohort study ✔
2. Case-control study
3. Randomized controlled clinical trial
4. Cross-sectional study
5. Cross-over study

INCORRECT ✖

The correct answer is 1.

This is a cohort study because all subjects are free of illness at the start of the study.

(Choice 2) In case-control study, ill subjects (cases) and well subjects (controls) are compared with respect to a risk factor.

(Choice 3) In a randomized controlled clinical trial, some members of a cohort with a specific disorder are given one treatment and other members of the cohort are given a different treatment or a placebo.

(Choice 4) In a cross-sectional study, subjects are studied at a specific point in time.

(Choice 5) In a crossover study, some subjects receive the drug first while others receive the placebo first; later in the study, the groups switch treatments.

1 points

Which of the following statistical tests would be most appropriate for assessing whether there are significant differences in 1-minute Apgar scores between infants born by emergency cesarean section and those born by spontaneous vaginal delivery?

1. Student's t-test ✔
2. Analysis of variance
3. Correlation coefficient
4. Chi-squared test
5. Logistic regression

INCORRECT ✖

The correct answer is 1.

The question relates to assessing the statistic validity of differences in a continuous variable, which in this question are Apgar scores between two groups: babies born vaginally and those born by cesarean delivery. Statistical comparison of continuous variable data between two groups can best be assessed by Student's t-test, which, by the way, is named after a Dr. Student.

(Choices 2,3,4 & 5) If the comparison were between two groups with a categorical variable, a chi-squared test would be correct. If the comparison were among three groups with a continuous variable, analysis of variance would be correct. A correlation coefficient assesses the strength of association, not differences between groups. Logistic regression is used to assess a categorical outcome for a continuous predictor.

1 points

Which one of the following skin lesions is most likely to be related to repeated or chronic sun exposure?

1. Keratoacanthoma.
2. Actinic keratosis. ✔
3. Dermatofibroma.
4. Junctional naevus.
5. Tinea versicolor.

INCORRECT ✖

The correct answer is 2.

Repeated or chronic exposure to sunlight produces skin damage that can result in actinic keratosis, skin cancers (e.g. basal cell cancer, squamous cell cancer and melanoma) and dermatoheliosis, including solar lentigo, ageing, wrinkles, and telangiectasias.

(Choices 1 & 3) Keratoacanthomas are benign and thought to arise from hair follicles. Dermatofibromas are benign nodules that may result from abnormal scar formation, such as in reaction to an insect bite.

(Choice 4) Junctional naevi are not related to solar damage.

(Choice 5) The appearance of Tinea versicolor may be enhanced by sun exposure. However, the condition is caused by a dimorphic fungus, Malassezia furfur. The expression of infection is promoted by heat and humidity.

1 points

A local community group asks you to give a brief presentation to its members on weight loss and obesity issues, and discuss the meaning of 'body mass index' (BMI). Which one of the following concepts about BMI would be the most appropriate to include?

1. Combined with waist circumference BMI is the most useful indicator of health risk. ✔
2. Weight/standard weight ratio is less reliable than BMI when assessing obesity in children.
3. Adjust upper limit of normal for BMI upwards for people from South-East Asia.
4. Bioimpedance analysis is a more useful measure of obesity than BMI in body builders.
5. BMI can overestimate body fat in the elderly.

INCORRECT ✖

The correct answer is 1.

Body mass index (BMI) is a measure of adiposity and is given as the weight in kilograms divided by the height in meters squared. It has been suggested that some of the other anthropomorphic measurements which look more closely at the distribution of body fat (waist-to-hip ratio, waist circumference) may be more accurate predictors of the effect of obesity on health. These measures of central obesity have been used to predict the incidence of development of diabetes but have not been shown to be any more accurate than BMI alone. However, there is probably value in using these additional indices as well as BMI in the assessment of obesity as a health risk.

(Choice 2) The parameters for the assessment of obesity in children include BMI and weight/ standard weight. Use of BMI as an index of obesity in children is complicated by gain in height and an increase in BMI does not necessarily equate with increasing obesity. It has been suggested that weight/standard weight may be a more reliable indicator of obesity in children.

(Choice 3) Recent data from Singapore suggests that those with a BMI between 23-27.4 are at moderate risk of obesity-related disorders such as ischaemic heart disease and diabetes, suggesting that the upper limit of normal should be adjusted downwards for this and similar societies. Singaporeans were found to have substantially higher percentages of body fat compared with their Caucasian counterparts of similar BMI.

(Choice 4) Bioimpedance analysis is a non-invasive measurement tool that is use for estimation of blood flow and body composition. As such it is of value in epidemiological studies of obesity and is thought to produce a more accurate estimate of fat mass in children than BMI. However, in adults the technique does not appear to give any more precise measurement to the fat mass of control subjects compared with an increased lean muscle mass (e.g. body builders).

(Choice 5) The BMI ratio is focused on weight and height. It does not take into account distributions of muscle and bone mass and so tends to overestimate the 'fat' deposition in groups such as athletes who have greater proportions of lean body mass. Conversely the BMI may underestimate the amount of adipose tissue in those with a lesser lean body mass, such as the elderly.

1 points

Which one of the following life events is the most significant sociodemographic predictor of stress-related physical illness?

1. Unemployment.
2. Imprisonment.
3. Illness of children.
4. Marital disruption. ✔
5. Bankruptcy.

INCORRECT ✖

The correct answer is 4.

Marital disruption is the single most powerful sociodemographic predictor of stress-related physical illness. Although **(Choices 1,2,3 & 5)** are also stressful and patients may present to a family doctor with a stress-related illness, separated individuals have more acute illness and visits to a doctor than do married individuals.

Separated and divorced adults have the highest rates of doctor attendances with acute medical problems, chronic medical conditions that disrupt social activity, and disability even when age, ethnic background and income are controlled.

1 points

A 45-year-old man presents with shortness of breath on exertion and some weight loss. He is a non-smoker and has worked for 15 years in an electricity-generating plant in a regional town. He is married with two children and is worried about the effect of his breathlessness on his capacity to earn a living for his family. Which one of the following is the most likely contributing factor to his condition?

1. Passive smoking at work.
2. Asbestos exposure. ✔
3. Environmental coal dust.
4. Air pollution.
5. Wood smoke from home heater.

INCORRECT ✖

The correct answer is 2.

Between 1945 and 1980 in Australia, asbestos was widely used in the construction industry, shipyards, power stations, boiler making and plumbing. It was also widely used in home building fibro cement, insulation, fireproofing, pipes, paint, floor coverings, ceiling tiles, and roofing materials. By the mid 1970s, the wider public was alerted to the dangers of asbestos. Gradually asbestos mining was phased out and industries replaced asbestos with alternative products like fiberglass. Asbestos related disease is slow to declare itself and there can be a lag period of 20 years in or more after exposure before symptoms of lung disease appear. There are other types of inorganic dusts like coal or silica that cause disease when inhaled into the lung. Asbestos fibres are more dangerous due to their small size. Fibres become airborne very easily and when inhaled, find their way into the smallest airways and air sacs of the lung where the critical transfer of oxygen into the blood takes place.

Asbestosis is fibrosis, or scarring, of the lungs due to prolonged asbestos exposure. The airways become so inflamed and scarred that oxygen is no longer is able to pass from the lungs into the blood. The lungs become stiff and inelastic, and breathing becomes progressively difficult. The affected person feels tightness in the chest and shortness of breath on exertion. Lung fibrosis usually takes at least 10 years to develop after exposure to asbestos, but once it does, the symptoms get progressively worse. Mesothelioma is a cancer of the pleura. Very little asbestos exposure is required to develop a mesothelioma. The tumor grows and spreads quickly into the lung and the chest wall. Patients with mesothelioma have difficulty breathing especially on exertion and may get chest pain. They may also lose weight. There is no proven re effective treatment for mesothelioma.

(Choice 1) Passive smoking describes the inhalation of other people's tobacco smoke ex second-hand smoke. Major reviews of the evidence on health effects conclude that passive smoking causes heart disease and lung cancer. There is evidence that is suggestive, but not sufficient to infer a causal relationship between passive smoking and adult onset asthma and chronic obstructive pulmonary disease.

(Choice 3) The increase in fine dust particles from coal dust is clearly linked to human mortality and respiratory and cardiovascular morbidity.

(Choice 4) Air pollution occurs when the air contains gases, dust, fumes or odor in harmful amounts. Primary pollutants include carbon monoxide from car exhausts and sulfur dioxide from the combustion of coal. There are a wide range of health effects such as eye irritation and headaches and more serious effects such as damage to the respiratory, nervous, reproductive and immune systems. Some air toxins are known to cause, or are suspected of causing cancer.

(Choice 5) Polycyclic aromatic hydrocarbons (PAHs) are a mixture of organic compounds that form some of the air toxins generated during wood burning. Some of these compounds are suspected of causing cancer. PAH levels are highest in winter in regional towns where wood burning is a popular form of home heating. Wood smoke is a complex mixture of gases and particles. The gases and particles are air pollutants. The main air pollutants in wood smoke include carbon monoxide, nitrogen oxides, air toxins and particulate matter.

Carbon monoxide (CO) is an invisible and odorless gas that can cause toxic effects in humans by depriving the body of oxygen. CO levels will rise in a home where a wood-fired heater is in use. A poorly installed, improperly vented or leaking wood heater can cause excessive levels of CO in the home. Even low levels of CO exposure can lead to headaches, fatigue or chest pain. Extended exposure to higher levels of CO can give rise to permanent health effects to the heart and brain.

Particulate matter (PM) can affect the human respiratory and cardiovascular systems. Fine particles can cause a variety of temporary or short-term health problems, including itchy or burning eyes, throat irritation, runny nose and illnesses like bronchitis. Particles can aggravate existing heart and lung conditions such as angina, chronic bronchitis, emphysema and asthma.

1 points

Which one of the following is the most common form of elder abuse in Australia?

1. Financial deprivation.
2. Maternal deprivation.
3. Physical abuse.
4. Psychological abuse.
5. Neglect. ✔

INCORRECT ✖

The correct answer is 5.

While in society as a whole the most common image of 'abuse' is intentional physical violence, the most common form of elder abuse is actually neglect. Neglect is characterised by inattention to or isolation of the elderly individual; for those who are dependent on others to provide daily necessities, this passive form of abuse can have very serious consequences.

1 points

You are counselling a 30-year-old patient about her diet. She is concerned about cholesterol and asks you for information about the cholesterol content of a variety of foods. Which one of the following foods contains the most cholesterol?

1. Peanut butter.
2. Yoghurt. ✔
3. Coconut oil.
4. Avocado.
5. Vegemite ®.

INCORRECT ✖

The correct answer is 2.

Cholesterol is a fat-like substance found only in animal products (meat, fish, poultry, milk products and eggs). Of the foods listed, yoghurt is the only animal product. The vegetable products listed contain various levels of fats but do not contain cholesterol.

1 points

A high rate of blindness secondary to Chlamydia trachomatis has been identified in an Indigenous community. Which one of the following measures is most likely to be effective in reducing the prevalence of trachoma in this community?

1. Eradication of mosquitoes.
2. Regular face and hand washing. ✔
3. Avoidance of community bathing.
4. Enhanced routine childhood immunization.
5. Universal prophylactic tetracycline.

INCORRECT ✖

The correct answer is 2.

Blindness as the result of chronic infection with the obligate intracellular bacterium, Chlamydia trachomatis is a major health issue in disadvantaged societies including many indigenous communities in Australia. The infection is spread by direct contact, usually between mother and child. In cases of poor hygiene the child may suffer recurrent bouts of infection leading to a chronic keratoconjunctivitis. This is followed by scarring of the tarsal conjunctiva; and as this worsen the tarsus becomes distorted and the eyelid turns inward (Entropion) with the eyelashes pointed to and irritating the cornea (trichiasis). Chronic irritation can lead to abrasions, corneal opacification and blindness).

Treatment is aimed in four directions as defined in the World Health Organization SAFE (Surgery, antibiotics, facial cleanliness and environmental factors) strategy. Surgery is advocated for those individuals who could benefit from correctional eyelid surgery. Antibiotics in the form of oral azithromycin (not tetracycline) are given to family members with active trachoma. Facial cleanliness is encouraged and communities are made aware that the transmission of Chlamydia can be minimized by good standards of personal hygiene, particularly regular hand and face washing. Environmental factors such improved water supplies, better community hygiene and fly and dust control should also be addressed.

(Choices 1,3 & 4) While immunization, mosquito control and community bathing control can be of importance in other diseases, these issues have nothing to do with the prevention or spread of chlamydia.

1 points

Which one of the following is the best method of evaluating the effectiveness of a preventive intervention that could be included in a periodic health check?

1. Case control study.
2. Case report.
3. Cohort study.
4. Descriptive study.
5. Randomized controlled trial. ✔

INCORRECT ✖

The correct answer is 5.

A randomized controlled trial is a study in which there are two groups an intervention group and a control group. Patients are randomly allocated to each group. The intervention group then receives a treatment or test and the control group receives no treatment or test. Randomized controlled trials are the standard method for answering questions about the effectiveness of different interventions.

(Choice 1) A case control study is a study in which patients who already have a certain condition are compared with people who do not. They are less reliable than cohort studies and randomized controlled trials. The advantages of a case control study are that data can be obtained quickly from patients who present with the condition being studied and obtain data from them.

(Choice 2) A case report is the simplest form of academic publication and usually involves a detailed report of the condition of interest in one patient. It provides no information that would determine the effectiveness of any preventive intervention.

(Choice 3) A cohort study is one in which a patient population who have a particular condition are studied for a period of time and compared to another group who do not have that condition. These studies can take a long time to complete.

(Choice 4) A descriptive study is one that attempts to reveal patterns associated with a certain condition without a pre-existing hypothesis. They are helpful in planning resource allocation and identifying areas for further research but not in evaluating the effectiveness or efficiency of a preventive intervention.

1 points

A new screening procedure has been proposed for a congenital disease. Which one of the following is the most important criterion for accepting this as a primary screening procedure in actual practice?

1. A low incidence of the congenital condition in the community.
2. The congenital condition has limited impact on life expectancy.
3. Early treatment provides a better quality of life than with late diagnosis. ✔
4. There is a moderately high level of risk with the screening procedure.
5. The screening procedure is low cost.

INCORRECT ✖

The correct answer is 3.

Several criteria have been developed for new screening procedures to meet prior to being accepted by clinicians for general use. The disease being screened for must have a significant prevalence in the community and have a significant impact on life expectancy and the quality quantity of life. Ideally the screening procedure must detect affected individuals at the pre-symptomatic phase so early treatment can provide significant improvement over treatment provided once the disease has become evident.

Screening procedures should have minimal risks and patient acceptability. Provided other criteria are met, cost should not be a reason to exclude it as a primary screening procedure.

1 points

A 32-year-old Indigenous woman attends a general practice with an upper respiratory tract infection. You advise her about symptom management and that no other treatment is needed at this time. Which one of the following is likely to be the most relevant opportunistic screening assessment to do at this consultation?

1. Alcohol consumption. ✔
2. Visual acuity.
3. Microalbuminuria.
4. Mammogram.
5. Papanicolaou (Pap) smear.

INCORRECT ✖

The correct answer is 1.

In 2005 RACGP and the National Aboriginal Community Controlled Health Organization (NACCHO) published 'A national guide to preventive health assessment in Aboriginal and Torres Strait Islander people'.

Level I evidence exists that control of problem drinking can prevent alcohol-related injuries and that opportunistic assessment reduces problem drinking and may reduce alcohol-related consequences in the general population, especially when followed by brief intervention by general practitioners or other health care providers. While few studies have evaluated the effectiveness of brief intervention for problem drinking in the Aboriginal and Torres Strait Islander population, given the burden of disease associated with alcohol, even a small reduction in alcohol consumption may have significant public health benefits.

(Choice 2) Current visual acuity screening recommendations are to screen adults (from age 40 years) for reduced visual acuity at least every two years. The need for cataract surgery and/or correction of any refractive errors should be identified.

(Choice 3) While it is recommended to assess for microalbuminuria annually in those with diabetes, it is not recommended to routinely screen for microalbuminuria in those who are not recognized as having diabetes or hypertension.

(Choice 4) Current breast screening recommendations are to screen women aged 50-69 years using mammography every two years; and to advise women aged 40-49 years that there is likely to be a small benefit in mammography screening when weighed against factors such as their age (the benefits of screening may increase through the decade), family history, possible risk factors, personal concerns, levels of anxiety, inconvenience, cost and discomfort.

(Choice 5) For Pap smear screening it is recommended to screen women who have no symptoms or history suggestive of cervical pathology with Pap tests every two years, commencing pap tests for all women who have ever been sexually active at 18-20 years or two years after their first sexual intercourse, whichever is later. It is important to use strategies to reduce barriers to utilization of Pap tests by Aboriginal and Torres Strait Islander women. Examples of these strategies include the involvement of female health workers, culturally appropriate educational materials, transport subsidies, and locally appropriate recall and reminder systems.

1 points

A 39-year-old woman presents for her Papanicolaou (Pap) smear two years after her previous normal Pap smear result. She has not had sexual relationships for over two years and is well. She asks if she should have a check for sexually transmitted diseases while she is having her Pap smear. Which one of the following is the most appropriate reason for advising against testing for chlamydia?

1. The test for chlamydia is unreliable.
2. She would have had symptoms by now if infection was present.
3. Chlamydia is uncommon in her age group. ✔
4. First catch urine polymerase chain reaction (PCR) is more sensitive.
5. She has had no recent sexual partners.

INCORRECT ✖

The correct answer is 3.

The American Centre for Disease Control and Prevention advise annual testing for chlamydia! infection for all sexually active women 25 years or younger, and older women who are at risk due to a new sexual partner or multiple sexual partners. This woman is thus not in an age group where chlamydial infection is common and this is the most appropriate reason for advising against testing her for chlamydia.

(Choice 1) Endocervical, rather than cervical, swabs must be taken for accuracy in diagnosis of Chlamydia trachomatis in women as the parasite is an intracellular obligate. Endocervical swab culture has a sensitivity of 60–65% and thus cannot be said to be unreliable.

(Choice 2) Some 50-70% of women, with a large reservoir of chlamydial infection are asymptomatic and may remain so.

(Choice 4) While it is correct that polymerase chain reaction (PCR) testing of urine is more sensitive than endocervical swab culture (90–95% versus 60–65%), it is this woman's age which makes advice against testing appropriate, rather than test sensitivity.

(Choice 5) The lack of recent sexual partners is not an appropriate reason for not testing as the infection may have been passed on by an earlier sexual contact, particularly if that contact was one of the 25% of infected men who are asymptomatic.

1 points

A 45-year-old woman presents with a two-day history of abdominal cramping and bloody diarrhoea. On further questioning, she tells you that she had been on a two-week vacation touring Central America. She occasionally ate some of the local Foods, especially fresh fruits and salad, but was careful about her drinking water. She has felt well for the past month since returning from the trip until the current symptoms started two days ago. She has no other history of travel or exposure to infectious agents. Which one of the following organisms is most likely to be causing her symptoms?

1. Entamoeba histolytica. ✔
2. Enterotoxigenic Escherichia coli.
3. Shigella species.
4. Salmonella species.
5. Giardia lamblia.

INCORRECT ✖

The correct answer is 1.

All of those infective agents listed (bacteria, viruses, parasites) have been associated with 'travelers' diarrhoea'. However, the long incubation time and the bloody stool make amoebiasis infection (Entamoeba histolytica) the most likely diagnosis in this instance (A is correct).

(Choices 2,3 & 4) The bacterial species listed (E. coli, Shigella, salmonella) would have a much earlier presentation.

(Choice 5) Giardia also incubates more quickly and is rarely a cause of bloody diarrhoea. In a case in which the history does not narrow the number of possible organisms, empirical treatment may make the patient more comfortable while awaiting laboratory results. An antidiarrhoeals such as loperamide may be useful in the absence of rectal bleeding but should only be prescribed if the diarrhoea is disabling, as many cases are self-limiting and of brief duration, and attention to faecal hygiene and maintenance of fluid intake are adequate measures.

A reasonable additional therapy would be an antibiotic to cover the bacterial pathogens, of which enterotoxigenic E. coli is the most common. Currently, ciprofloxacin is considered to be the antibiotic of choice for this organism, and it will also cover Shigella species. Sulfamethoxazole-trimethoprim or doxycycline is traditional and cheaper alternative therapies. If the stool specimen showed a parasite, the treatment could be revised to include specific therapy for the identified organism.

1 points

A 67-year-old Caucasian man residing in Northern Australia presents with a painless swelling in his left groin. Core biopsy of the lesion shows squamous cell carcinoma (SCC) in a lymph node. Which one of the following would be the most likely original site of the lesion?

1. Left leg. ✔
2. Left testis.
3. Penis.
4. Rectum.
5. Anus.

INCORRECT ✖

The correct answer is 1.

Tumors of the anus (below the dentate line) are usually squamous cell carcinomas and this could be the primary site of this man's groin lesion, as these tumors drain preferentially to inguinal nodes. Similarly, the primary site could be a penile lesion which would also drain to the groin. Lesions from the left leg would drain preferentially to the inguinal nodes; and squamous cell carcinomas of the skin are much more commonly found on the leg rather than at the other two sites particularly among Caucasians living in the tropics.

(Choices 3 & 5) Metastatic squamous cell carcinoma (SCC) in a groin lymph node could arise from the skin of the left leg, lower trunk, back and perineum (including penis, anus and scrotum). The additional clue of him being a non-indigent resident of Northern Australia makes a cutaneous origin from an SCC of the sun-exposed legs, consequent on long history of probably wearing shorts, more likely than penis or anus in this 67-year-old Caucasian. Testicular tumors and rectal tumors are not of squamous cell type and in any event do not drain to groin nodes, but to para-aortic nodes.

This question is focused on a knowledge and understanding of the anatomy and drainage of the lymphatic system; and requires knowledge of the likely pathological processes involved. Testicular tumors are either seminomas, or non seminomatous germ cell tumors, and can be excluded on that basis alone. When testicular tumors do spread, they do so through the retroperitoneal lymphatics or via the blood.

(Choice 4) Cancers of the rectum are usually adenocarcinomas and spread through mesenteric and pelvic lymphatics to preaortic and pelvic nodes.

1 points

A 25-year-old man presents for travel advice about malaria prevention. He will be travelling to Thailand for a stay of six weeks, visiting both city and country areas, including trekking in the north near the Thai-Burmese border. Apart from advice about avoiding mosquito bites (special care between dusk and daylight, wearing long sleeves and trousers outside, use of repellent creams and sprays, use of screened windows and mosquito netting at night), which one of the following would be the most appropriate advice for chemoprophylaxis?

1. Quinine from a week before arrival until six weeks after return.
2. Chloroquine from time of arrival until time of return.
3. Doxycycline from two days before arrival until two weeks after return. ✔
4. Albendazole from a week before arrival until six weeks after return.
5. No additional chemoprophylaxis is required.

INCORRECT ✖

The correct answer is 3.

Human malaria is endemic or sporadic through large areas of the tropics, particularly areas where the anopheles mosquito flourishes, such as in northern Thailand. The disease is caused by four species of protozoal parasites: Plasmodium falciparum, ovate, P vivax, and P malariae. Falciparum malaria is the most severe form. Transmission is from the bite of an infected anopheles mosquito after the mosquito has fed on human blood containing gametocytes. In the mosquito the sexual cycle is followed by invasion of the insect's salivary glands by sporozoites, which are then injected into a human bitten by the mosquito. The organisms subsequently invade the host erythrocytes, where asexual multiplication occurs with periodic ruphre into the blood stream causing fever with a periodicity varying with the species of parasite, hemolysis and anaemia. Widespread organ damage can occur particularly with falciparum malaria. The first onset of symptoms may be some time after leaving the endemic area, and antimalarial chemoprophylaxis thus requires treatment to begin prior to arrival, to be constant during exposure, and to continue for two or more weeks after leaving the endemic area.

In Thailand chemoprophylaxis may be optional for travel confined to major urban centres and the south, but is essential in this young man trekking in the north where malaria is endemic.

Of the options given, doxycycline **(Choice 3)** is an appropriate prophylactic agent, given over the time period outlined.

(Choice 1) Quinine is now reserved for treatment of falciparum malaria, and would be require a intravenously for severe disease.

(Choice 2) Chloroquine is also an appropriate prophylactic antimalarial, but needs to be started one week prior to arrival and continued for four weeks after leaving the endemic area.

(Choice 4) Albendazole is an antihelminthic used in treatment of roundworm, threadworm hookworm, tapeworm and other intestinal parasites, and for the systemic manifestations of hydatid disease in humans.

1 points

A 52-year-old woman presents to a general practice concerned about her risk of breast cancer. She has a cousin who has recently been diagnosed with breast cancer age 58 years. Breast examination is normal. Which one of the following would be the most appropriate advice?

1. Annual mammographic screening.
2. Mammographic screening each two years. ✔
3. Annual ultrasound.
4. Referral to a genetic counsellor.
5. Regular breast self-examination.

INCORRECT ✖

The correct answer is 2.

In Australia and worldwide (excluding skin cancers) breast cancer is the most common cancer in women, accounting for nearly 20%of all cancers in women. It is more common in developed countries and incidence is increasing worldwide. The most important risk factors for development of breast cancer are the female gender and age the incidence rising progressively with increasing age.

Hormonal factors are of prime importance-breast cancer predisposition is increased by early menarche, a late menopause and nulliparity. In porous women, the risk decreases the earlier the age of first full term pregnancy, and from increased parity, and prolonged lactation. Use of the oral contraceptive pill (OCP) and hormone replacement therapy (HRT) both increase the risk while being used and for five to ten years thereafter.

In a small but important group of patients, breast cancer displays a familial genetic inheritance pattern. High-risk genetic inheritance breast cancer has hallmarks of cancer in two or more close (first degree) relations, early age of onset, a familial constellation of cancers fitting a particular syndrome (e.g. breast and ovarian cancer), evidence of autosomal dominant inheritance of such cancer susceptibility, and a tendency for multiple primary tumors. Mutations in the BRCA1 and BRCA2 genes lead to an autosomal dominant cancer susceptibility conferring an increased risk of breast and ovarian cancer to female carriers of the mutated gene.

In this woman's case, the presence of breast cancer at age 58 years in her cousin a non-first degree relative does not indicate likelihood of a familial genetic inheritance high risk pattern. She (and her cousin) thus falls into the standard majority of sporadic cancers late age of onset, a single individual affected by cancer, a solitary cancer.

The most appropriate advice would thus be to follow the government's free screening program for women at standard risk namely mammographic screening each two years (biannual screening) for all women from 50-70 years of age, to facilitate early detection of breast cancer. The program is made available to women outside the above range on request. Similar programs are widely used in other countries.

(Choice 1) In the case of women in the high-risk genetic inheritance pattern, more frequent annual mammographic screening is appropriate, together with six-monthly clinical review. Annual mammographic screening and six-month clinical review is usually recommended as longterm followup for patients with identified sporadic breast cancer such as the patient's cousin, because of her increased risk of a further primary breast cancer or recurrent tumor.

If the patient presenting in the above scenario had a family history of breast cancer in a sibling, mother or grandmother, where a genetic inheritance risk is suspected, the above regimen of annual mammography and more frequent clinical review would have been the most appropriate advice.

(Choice 3) Ultrasound examination of the breast is complementary to mammography, and is of greatest help in distinguishing cystic from solid lumps and in younger patients with breast lumps. Annual ultrasound alone is thus not a recommended screening regimen for a woman of this age many mammographic screen-detected small cancers are not identifiable on ultrasound.

(Choice 4) Referral for genetic counselling is indicated for selected instances of high risk genetic inheritance patients, but not for women at standard sporadic risk. Testing for the high-risk BRAC and other genes in familial syndromes can be helpful in guiding advice regarding early detection measures or prophylactic mastectomy. However it is appropriate to stress that even in the presence of a high-risk gene mutation, half or more of such affected women will not develop cancer of the breast, because of variable penetrance and associated constitutional factors.

(Choice 5) Regular breast self-examination is not as sensitive as mammographic screening and can engender, as an unwanted side effect, a large number of queries and attendances for simple cyclical or noncyclical breast lumpiness, a common feature of no predictive significance. However, regular breast self-examination should not be discouraged, as some cancers found on clinical examination are not detectable on imaging by mammography or ultrasound (e.g. Paget disease of nipple).

1 points

Which one of the following factors is most closely associated with the lowest mortality rates and maximal survival in the elderly?

1. Financial independence.
2. The presence of living children. ✔
3. Marital status.
4. Peer group support.
5. Living in one's own home.

INCORRECT ✖

The correct answer is 2.

Unlike in younger populations, marital status is not associated with reduced mortality in the elderly. The presence and the number of living children are the most powerful predictors of prolonged survival. Although improvements in life expectancy have been attributed in part to lifestyle factors few studies have examined the association of lifestyle with survival, using several lifestyle factors simultaneously, in a healthy elderly population. However lifestyle remains an important predictor of mortality even in old age. Adequate familial support (presence of living children) and the number of living children have been shown to be the most powerful predictors of prolonged survival (B is correct). Where there is no support from living children and an absence of intergenerational exchanges, economic and social support for the elderly is required at the public level, increasing the demand on existing limited resources. In younger populations marital status has been shown to be a significant predictor of survival but this is not the case in the elderly.

(Choice 1) Financial independence has been identified as a positive influence on food security and access to private health insurance, but has not been shown to be a major influence on life expectancy and survival.

(Choice 4) Peer group support and increased social interaction with others of the same age is believed to enhance cognitive functioning there is no evidence that it increases survival rates in the elderly.

(Choice 5) Living in one's own home can be seen as an extrapolation of financial independence and influences the quality of life but is not a major predictor of survival in the elderly.

1 points

Which one of the following is the most common reaction to parental divorce by children under the age of 16 years?

1. Feelings of guilt.
2. Behavioral problems. ✔
3. Running away.
4. Anxiety disorders.
5. Developmental delay.

INCORRECT ✖

The correct answer is 2.

In every age group there is a wide range of reactions, but the most common reaction is behavioral problems. Given the stressors and difficulties related to divorce, a large body of research has examined the relationship between divorce and child adjustment, largely in studies comparing child adjustment – expressed as the presence of behavioral, social and emotional problems – in divorced versus intact families. Although there is little doubt that divorce brings a number of important stressors for children, the research indicates that the majority of children from divorced families are emotionally well adjusted.

Most research into the effects of parental separation and divorce has focused on children and young adolescents because children are clearly still dependent on parents, and the welfare and adjustment of the children can be significantly affected by the process.

As a result of parental divorce, children have been shown to exhibit a range of reactions including self-blame, fear, confusion, guilt **(Choice 1)** and sadness. However, the most strongly and consistently related reaction to parental divorce seen in children is behavioral problems. Compared with matched samples of children from non-divorced families, children of divorced parents have been found to be more disobedient, aggressive, non-compliant and lacking in self-regulation. This increased risk of behavioral problems for children of divorce has also been found on indices of school misconduct, such as classroom misbehavior and suspension from school. The incidence of running away **(Choice 3)** from home is related to reduced parental monitoring, poorer quality parenting and less effective coping skills and also occurs in intact families. Children with divorced parents are more likely to receive psychological treatment, have more illnesses and medical problems and visits to the doctor, than children with non-divorced parents. Divorce has also been associated with the child internalizing problems.

(Choices 4 & 5) Children and adolescents from divorced families experience higher levels of depressed mood in comparison to those from non-divorced families. Similarly, research also indicates a greater incidence of anxiety disorders in children with divorced parents, although differences have typically been modest. A child's age and developmental stage has been identified in the research literature as one of several factors that is associated with children's responses to separation and divorce. It appears that parental divorce does not necessarily have more negative effects on children of a particular age, but differential effects can be seen at different developmental stages. This does not correlate with higher rates of developmental delay in children from divorced families.

1 points

A 25-year-old mission worker presents for travel advice against amoebiasis. He will be stationed in a tropical African rural mission for a three-month period. Which one of the following would be the most appropriate advice?

1. Avoid eating uncooked vegetables or drinking un-boiled water. ✔
2. Metronidazole from arrival until return.
3. Ciprofloxacin from arrival until return.
4. Avoid eating pork.
5. Avoid eating beef.

INCORRECT ✖

The correct answer is 1.

Amoebiasis in humans is caused by Entamoeba histolytica, a pathogenic intestina protozoal amoeba. Spread occurs between humans via the faecal-oral route by ingesting cysts passed in faeces which have contaminated food or water. Uncooked vegetable such as lettuce are a common vector. All vegetables should be cooked and all water boiled before ingestion.

The cysts survive for long periods outside the body. After ingestion, the cysts transform to trophozoites causing amoebic colitis with undermined ulcers, or occasionally focal amoebomatous granulomas. Spread via the portal vein to the liver can cause amoebic hepatitis and a liquefying amoebic abscess.

Response to metronidazole or tinidazole is usually rapid; and medication is usually required for 1-2 weeks.

(Choices 2 & 3) Prophylaxis with metronidazole or ciprofloxacin is not recommended, but care in faecal-oral hygiene is essential in endemic areas.

(Choices 4 & 5) Certain tapeworm infestations of humans are transmitted by eating contaminated beef (Taenia saginata) or pork (Taenia solium), but these meats have no special associations with amoebiasis.

1 points

A 30-year-old man is about to travel to South and Central America on holiday and asks for advice for prevention of yellow fever. Which one of the following is the most appropriate advice?

1. A single vaccination is protective for 10 years. ✔
2. Care with faecal-oral hygiene is protective.
3. Boiling all water before drinking is protective.
4. Chemoprophylaxis with doxycycline is protective.
5. Avoiding swimming or wading in fresh water streams is protective.

INCORRECT ✖

The correct answer is 1.

Yellow fever is caused by a Flavivirus and transmitted to humans from the bite of insect mosquito vectors such as Aedes Egypti. A zoonotic reservoir exists among the monkey population of tropical rainforests in West and Central Africa and South and Central America. In previous centuries severe epidemics were liable to wipe out large numbers of ship's crews from the 'vomito negro'. The widespread distribution of mosquito vectors raises the risk of epidemics. Clinical features include rigors and fevers with an initial viremia, jaundice, petechiae, hematemesis, and circulatory failure. A single vaccine with a live attenuated virus is largely free of side effects and gives protection for at least 10 years. Minimizing the risk of mosquito bites in endemic areas is also prudent. Treatment is largely supportive and symptomatic and chemoprophylaxis ineffective.

Avoiding swimming and wading in fresh water streams lowers the risk of hookworm and schistosomiasis, but not yellow fever; and faecal-oral hygiene care is of importance in avoidance of enteric fever, but not yellow fever.

1 points

A 30-year-old Christian mission worker presents as he is about to serve a term in central Africa. He wishes advice about prevention of contracting schistosomiasis (bilharziasis). Which one of the following would be the most appropriate advice?

1. Avoid eating beef.
2. Avoid paddling or swimming in streams. ✔
3. Use mosquito repellent and sleeping nets.
4. Avoid eating freshwater fish.
5. Avoid eating pork.

INCORRECT ✖

The correct answer is 2.

Schistosomiasis is due to human infestation with a trematode blood fluke. The disease is endemic in Egypt (schistosome eggs have been found in Egyptian mummies) and in tropical Africa. Spined eggs passed in the urine or faeces of infected individuals contaminate fresh water of streams, rivers, lakes or irrigation channels and pass to a fresh water snail, the intermediate host. From the snail many motile hook-tailed cercariae are released which can penetrate the skin or mucous membranes of humans, the primary host. Infection usually occurs from paddling, wading, or swimming in contaminated water, and cercariae transform into adult schistosomes which are carried to the lungs and then to the liver and to vesical or visceral veins where they mature and mate. The female releases eggs into the urine or gut. Prevention involves avoidance of exposure to potentially contaminated water.

(Choices 1,3,4 & 5) Schistosomiasis is not transmitted by mosquitoes, nor are fish, beef or pork vectors of transmission.

1 points

A 10-year-old boy presents with urinary frequency. He has a history of recurrent urinary tract infections. Physical examination is normal. A midstream urine specimen shows protein+ and a trace of blood with no organisms seen or grown on culture. A plain abdominal X-ray is normal and renal ultrasound shows a dilated renal pelvis on the right. A micturating cystourethrogram is performed and is illustrated. Which one of the following is the most likely diagnosis?

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1. Vesicoureteric reflux. ✔
2. Bladder neck obstruction.
3. Pelviureteric junction obstruction.
4. Neurogenic bladder.
5. Congenital hydronephrosis.

INCORRECT ✘

The correct answer is 1.

The micturating cystourethrogram shows a normal urethra without valves. The bladder is of normal appearance but there is free reflux of contrast up the right ureter and into a dilated pelvicalyceal system. No contrast enters the left side. This is Grade III vesicoureteric reflux. Urine backs up into the ureter and collecting system, with mild dilatation of the ureter and pelvis and blunting of the calyces. If bladder neck obstruction **(Choice 2)** was present some distension of the bladder would be expected without necessarily any ureteric reflux.

(Choices 3,4 & 5) A similar picture of bladder distension would be seen with a neurogenic bladder. In cases of congenital hydronephrosis the urinary tract abnormality is confined to the renal calyces and pelvis without ureteric dilatation or reflux. If this boy had an obstruction at the pelviureteric junction there would not be any dilatation of the ureter or reflux up the ureter.

1 points

A 20-year-old man requests a vasectomy. He has been in a stable heterosexual relationship for three years with the same partner and they feel strongly that they do not want children now or in the future, His partner does not wish to continue taking the contraceptive pill, and he does not wish to use condoms. Which one of the following responses is most appropriate to his request?

1. You would not sanction the operation until he is over 21.
2. You would not sanction the operation under the circumstances because of its irreversibility.
3. You wish to talk to his partner to obtain her consent.
4. You will go ahead to make the arrangements.
5. You would advise him fully of the pros and cons of the procedure. ✔

INCORRECT ✖

The correct answer is 5.

The appropriate response is to explain fully the procedure to the patient – its advantages (definitive sterilization if postoperative monitoring confirms successful aspermia) and disadvantages (permanency, operative complications). After such discussion and preferably, but not essentially, with involvement also of his partner, at a subsequent interview, arrangements for surgery **(Choice 4)**can proceed on an informed and consenting adult patient. Many surgeons and hospitals have consent forms for the procedure, but written consent, although desirable, is not a legal requirement.

(Choice 1) The age of consent for sterilization is not legally fixed at 21 years. The essential condition for consent is that the patient is a capable adult who understands fully the implications of the procedure and its aftermath and is fully committed to proceed.

(Choice 2) Although reversal after vasectomy can be successful with restoration of fertility, the procedure should be regarded as essentially irreversible, and discussed with the patient in these terms. Irreversibility is thus not necessarily a contraindication, but is the defined aim of the operation.

(Choice 3) Consent of the female partner; although clearly desirable, is also not an essential component of informed consent for vasectomy.

1 points

A 33-year-old married man with three children, working as a mechanic, presents saying that he has a lifelong conviction that he is a woman trapped in a man's body. He requests referral for gender reassignment surgery. There is no evidence of psychiatric disorder. Which one of the following is the most appropriate advice?

1. Surgery carried out as part of a comprehensive program reduces gender dysphoria in the majority of patients. ✔
2. Only non-genital cosmetic surgery can be offered in Australia.
3. All forms of gender reassignment surgery are banned in Australia.
4. You are legally obliged to inform his wife if you refer him to a program.
5. Cognitive behavioral therapy is effective in reversing the conviction of belonging to the opposite sex.

INCORRECT ✖

The correct answer is 1.

Gender reassignment surgery involving both genital and non-genital surgery is available in Australia in specialised gender identity disorder clinics and through private practitioner networks. General practitioners can refer patients directly to clinics; in fact this is common practice. Prior assessment by an endocrinologist, psychiatrist or clinical psychologist is not required as this will be done as part of the assessment process by specialists on the staff of the clinics or in the network.

These clinics perform a comprehensive biopsychosocial assessment to confirm the diagnosis of gender identity disorder and exclude conditions such as the delusional disorders that underly a number of requests for cosmetic surgery, and transvestism (cross dressing), for which surgery is not indicated. They also screen for known risk factors for poor outcome. Those considered likely to benefit from surgery are required to undergo a prolonged period of supported real-life experience which tests the ability to live in the desired role and its consequences. A large prospective study has confirmed the results of many retrospective studies that have indicated that when surgery is conducted on carefully selected patients as part of a comprehensive program, almost all experience resolution of gender dysphoria, and most are able to make satisfactory social and sexual adjustments and are satisfied with the results.

The programs includes counselling about how to tell the partner, children, other family members, friends and work associates about the proposed change in gender behaviour. However, there is no requirement for the doctor to notify anybody, and to do so would be a breach of confidence.

(Choice 5) Psychotherapy is used to help patients cope with the impact of their conviction. Cognitive behavioral therapy may be useful for associated depression, but is not designed to alter gender identity, and there is no evidence for its efficacy in that respect.

There are loosely linked networks of clinicians in private practice in most of the states of the Commonwealth who provide care for transsexuals, including gender reassignment surgery. While these services lack the clinical and academic rigor of public hospital based multidisciplinary gender identity disorder clinics, they have developed as a result of the lack of funding for public services. Groups such as the TG (transgender) Folks Supports Lists provide useful listings of medical services in Australia for transgendered people.

1 points

Which one of the following interventions is an example of primary prevention?

1. Tetanus prophylaxis. ✔
2. Screening sigmoidoscopy.
3. Performance of a Papanicolaou (Pap) smear.
4. BP screening.
5. Mantoux skin test for tuberculosis.

INCORRECT ✖

The correct answer is 1.

Tetanus prophylaxis is the only example of primary prevention given. Primary prevention is a technique aimed at avoiding diseases before they begin. This is accomplished by modifying exposure to disease states or modifying ill-health behaviors or risk factors. The objective of primary prevention is to prevent the occurrence of disease.

The objective of secondary prevention is to identify diseases in their early state and initiate measures to modify the disease process.

(Choices 2,3,4 & 5) Other examples of primary prevention include accident prevention through patient education, and most immunizations. Screening sigmoidoscopy, Pap testing, blood pressure screening, and the Mantoux test for tuberculosis are all examples of secondary prevention by earlier diagnosis.

1 points

A 45-year-old female sex worker attends for a sexual health check. Which one of the following would be the most important advice to give about the prevention of sexually transmitted infections?

1. Restrict the number of sexual partners.
2. Use penile condoms throughout all sexual activities. ✔
3. Avoid anal intercourse.
4. Douche after intercourse.
5. Take low-dose prophylactic antibiotics.

INCORRECT ✖

The correct answer is 2.

Female sex workers are predisposing themselves to a variety of sexually transmitted infections unless they take appropriate precautions. These infections include gonorrhoeae, chlamydia, herpes, syphilis and HIV. The most important advice to give would be to use penile condoms whenever sexually active, for the whole time of sexual penetration and when ejaculation occurs, as this would reduce the risk of each of these infections during vaginal, oro or anal intercourse to an absolute minimum.

(Choices 1,3,4 & 5) Restricting sexual partners will not prevent any of these if one of the partners happens to be infected, avoiding anal intercourse might reduce the risk of HIV but would not prevent it because HIV can be spread also by vaginal intercourse• douching after intercourse will not prevent uptake of the relevant organisms into the cervical glands; and low-dose prophylactic antibiotic therapy will not prevent infection except with the antibiotic to which the organism is sensitive. The antibiotic or antiviral agent, required would be different for each of the potentially infective organisms.

1 points

Which one of the following potential risk factors results in the highest risk for ischaemic stroke?

1. Number of family members.
2. Ethnic background.
3. Occupation.
4. Low educational level. ✔
5. Residential locality.

INCORRECT ✖

The correct answer is 5.

Of the many risk factors for ischaemic stroke, hypertension confers the highest risk. Hypertension contributes to stroke in approximately 70% of cases. The risk for stroke increases l0 to 12-fold for patients whose diastolic blood pressures average 105 mmHg when compared to an average diastolic pressure of 75mmHg. When a patient's blood pressure is lowered, the risk of a stroke is decreased.

(Choice 1) Hypercholesterolemia appears to affect the risk of having a stroke in a complex fashion, by demonstrating a U-shaped risk curve. This might reflect differential effects on hemorrhagic and ischaemic stroke.

(Choices 2,3 & 4) Non-insulin-dependent (Type 2) diabetes confers a relative risk of 1.8-3.0. Smoking is associated with a relative risk of about 1.5. Obesity increases the risk factor by 1.5 – 2.0.

1 points

A 36-year-old woman is 150cm tall and weighs 45kg. Her body mass index (BMI) is which one of the following?

1. 12.5
2. 15.0
3. 20.0 ✔
4. 30.0
5. 33.3

INCORRECT ✖

The correct answer is 3.

The body mass index (BMI) was previously known as Quetelet index, named after the eighteenth century mathematician Adolphe Quetelet. He was the first to adjust weight for height using the formula 'body mass index= weight (in kilograms) divided by the 0.9th power of height (in meters)'. This was later rounded to the square of height, thus BMI is now calculated as weight in kilograms divided by height in meters squared. This woman has a BMI of 20.

A healthy BMI is usually quoted as between 20-25 in adults. Younger people have, however, a lower healthy range BML and thus BMI in children and adolescents needs to be adjusted for age. In young women 'normal' BMI is also sometimes quoted as between 19 and 24, however a BMI less than 18 is underweight and requires further assessment.

A BMI less than 16 is definitely abnormal and less than 14 is seriously emaciated. A BMI of 25-29 is usually regarded as overweight and of 30-39 as obese and of 40 or more as morbidly obese. In community surveys, the mean BMI in the Australian general population is around 25.

While there are many other methods of assessing body mass and estimates of 'fatness', BMI is popular and has the advantage of being an easily calculated estimate. In addition to children however, it may also incorrectly identify people, especially men, as being overweight when they are physically fit and have a high BMI because of high muscle bulk through exercise. Most film-goers would not regard George Clooney as overweight in 2009. Combination of BMI with measurement of waist circumference may be additionally useful in such circumstances of Australia: Dietary guidelines for Australian adults. Canberra: 2003.

1 points

A 65-year-old man presents to the physician's office with his daughter, who is a resident in internal medicine. She encouraged her father to come in because he has experienced a 4.5kg (10-lb) weight loss in 2 months, as well as decreased appetite and occasional night sweats. She thinks his eyes appear somewhat icteric. After the physician conducts the interview, the physician and the patient's daughter leave so the patient can undress for the examination. Once in the hallway, the daughter says to the physician in a low voice, "I am really afraid that he might have pancreatic cancer, and he would be devastated to find out. Can you please discuss his test results with me first so that we can decide what to tell him together?" Which of the following is the physician's most appropriate response?

1. "Don't worry; I doubt that he has pancreatic cancer"
2. "I am ashamed of you, an internal medicine resident should know better than to ask me that"
3. "I appreciate your concern, but your father has a right to full disclosure, and it would be inappropriate for me to withhold information from him" ✔
4. "I would be happy to do that, but first we have to have a full family meeting and discuss together what would be best for your father"
5. "If this is really important to you, I can tell you the results before I tell your father"

INCORRECT ✖

The correct answer is 3.

Patients have a right to full disclosure of their medical status, and family members cannot request that the physician withhold information from a patient. Furthermore, without the patient's explicit permission, the physician cannot discuss the patient's health status with anyone else.

(Choice 1) Without the patient's explicit permission, the physician cannot discuss the patient's health status with family members.

(Choice 2) Rather than being dismissive, the physician should address the daughter's concerns, but remind her gently that his obligation is to the patient whose right to full disclosure must be respected.

(Choice 4) A family meeting may be appropriate sometime in the future, but first and foremost the patient should be asked what information he wants to hear himself and if he would like to involve his family in decision making.

(Choice 5) Without the patient's explicit permission, the physician cannot discuss the patient's health status with family members.

1 points

A 74-year-old woman with dementia has been in the intensive care unit (ICU) for 14 days following acute respiratory decompensation and renal failure. She is receiving continuous hemodialysis, and her electrolytes have been stable. Her oxygen saturation has been maintained on mandatory mechanical ventilation. She remains in critical condition, but the ICU team believes that she has a reasonable chance of recovering. A living will shows that she has agreed to intubation and resuscitation if necessary. However, her daughter, who is her designated health care proxy and who until now has been in contact with the medical team only by phone, arrives stating that she has power of attorney and asking that her mother be taken off the ventilator. Which of the following is the best course of action?

1. Discuss with the daughter her reasons for withdrawing care ✔
2. Maintain current management based on the patient's prognosis
3. Obtain a court order mandating continuation of ventilatory support
4. Obtain an ethics consultation
5. Withdraw ventilatory support based on the daughter's power of attorney

INCORRECT ✖

The correct answer is 1.

Before any decision regarding this patient's care is undertaken, the daughter's reasoning must be elucidated. Although she has durable power of attorney, the daughter's decision clearly disagrees with the patient's living will. Patients reserve the right to change their decision within a given set of circumstances. However, when a proxy does so, it must be determined whether the patient might have made the same decision. This determination is difficult but must be done to rule out any conflict of interest or ulterior motives by the daughter.

(Choice 2) Maintaining current management without first addressing the daughter's concerns is inappropriate.

(Choice 3) If, after questioning, any conflicts of interest are found and the daughter continues to insist on withdrawal of care, it may be necessary to obtain a court order to maintain support.

(Choice 4) Although an ethics consultation may eventually be necessary, the daughter's motives must be delineated first.

(Choice 5) Durable power of attorney allows a surrogate to make decisions on the patient's behalf in cases of incapacity. However, because this patient has a living will that contradicts the choice made by the daughter, the daughter's choice should not be automatically accepted.

1 points

A 45-year-old woman is scheduled to undergo elective bilateral tubal ligation. The gynecology resident, covering for a colleague, greets the patient in the preoperative area with the consent paper, which outlines the nature and indications of intervention, risks and benefits, and potential alternatives. The physician, however, finds the patient to be a Laotian-speaking woman with limited English skills, and she does not seem to understand the resident's explanations. The patient's husband, who speaks some English, offers to translate the physician's explanation and appears to be eager for his wife to undergo the procedure. How should the resident proceed to obtain consent?

1. Allow the patient's husband to translate
2. Ask the husband to be a surrogate decision maker and sign the consent
3. Ask the husband to step out and again explain, slowly and clearly, the informed consent with the patient
4. Draw an "X" next to the signature line and ask the patient to sign the form
5. Obtain a translator or translation services for the patient and conduct proper discussion for informed consent ✔

INCORRECT ✖

The correct answer is 5.

The patient must be informed of all components of an informed consent in a language that she understands. The only appropriate way to discuss the informed consent is through a translator.

(Choice 1) Although it would be convenient to ask the husband to translate, the husband is untrained in translation. Due to his intimate relationship with the patient and potentially biased views, an independent, professional translator should be used.

(Choice 2) The patient is not incapacitated but needs proper translation to understand the situation and the risks and benefits of the procedure.

(Choice 3) The patient does not understand English and therefore a repeated discussion will be of no additional benefit. Translator service is needed for proper informed consent.

(Choice 4) The patient needs to be informed properly before signing the consent paperwork.

1 points

A patient in the clinic has a positive HIV test, first by enzyme-linked immunosorbent assay antibody assay and then confirmed by Western blot. She is married, has three children, and is sexually active with her husband. After explaining what the results mean, she is advised that it is important for the husband to be informed of these test results. She appears stunned and frightened by this suggestion. What is the most appropriate course of action?

1. Call up the husband and suggest he stop in for an appointment so that he can be informed of the results of the test
2. Contact the public health department and ask that they inform the husband
3. Continue persuading the patient of the importance and necessity of informing her husband and offer support and resources to enable her to have this discussion ✔
4. Send an anonymous letter informing the husband of the exposure
5. Tell her that it is illegal for her not to inform her husband and other sexual contacts who have been potentially exposed

INCORRECT ✖

The correct answer is 3.

The patient should be convinced to disclose this information personally to her husband and the practitioner should not directly contact the husband; this is the best way to maintain a trusting and open doctor-patient relationship. Support should be made available to the patient so that she can inform the husband. Disease intervention specialists or HIV partner counseling and referral services, operating out of the department of health, may serve as valuable resources to help patients contact their partners. These services vary from state to state, but they can be offered to patients to facilitate this process.

(Choice 1) Going behind the patient's back is inappropriate; however, in some states there are laws that protect the physician from legal liability for breach of confidentiality if they do inform third parties of HIV exposure. The physician is protected, however, only after efforts by the physician have failed to convince to his or her sexual contacts.

(Choice 2) The ideal situation is one in which the patient informs her husband, and so the most appropriate response is to continue persuading the patient to reveal this information. However, if the patient does not feel comfortable revealing this information, especially in settings of domestic violence, a public health agency may be asked, with consent of the patient, to intervene and attempt to contact the spouse.

(Choice 4) If the patient refuses to inform her husband, then depending on the state there might be other avenues by which sexual partners may be contacted. Sending an anonymous letter informing the husband of the exposure, however, would likely damage the doctor-patient and husband-wife relationships.

(Choice 5) As a rule, partner notification is confidential and voluntary. Disease intervention specialists cannot inform third parties without the consent of the infected persons. Contacts are also typically not informed of the identity of the source.

1 points

An 85-year-old mentally competent patient is brought to the emergency department in respiratory distress. No living will is brought with the patient, and before contact is made with the family, the patient requires intubation and pressors and is transferred to the ICU. Broad-spectrum antibiotics are started for a presumed pneumonia. The family, including the patient's wife and children, arrive the next day. A discussion is initiated with the family regarding the patient's wishes as they relate to Do Not Resuscitate (DNR) and Do Not Intubate (DNI) orders. During this time the patient's wife is declared the surrogate, and she states that she would like the antibiotics continued, but her husband should be DNR. The patient begins to recover and is able to be extubated on day 3 of his hospital care. On CT scan of the chest to evaluate the extent of his pneumonia, he is found to have a pulmonary embolism. A recommendation is made by the hospital staff that he receives an inferior vena cava filter. In this situation, under whose authority can the filter be placed?

1. A court of law
2. The patient ✔
3. The patient's children
4. The patient's doctor
5. The patient's spouse

INCORRECT ✖

The correct answer is 2.

Whenever possible, consent for any treatment or procedure should be obtained from the patient. In this situation, although the patient's wife was the surrogate, her decision-making capacity ended when the patient was extubated and was able to speak for himself.

(Choice 1) A court of law is only utilized when a disagreement occurs among members of a patient's family and/or the physician is in charge of the patient's care.

(Choice 3) The patient's children are not in a position to make decisions on behalf of the patient because the patient has the capacity to make his own decisions and his wife is his surrogate.

(Choice 4) The patient's doctor can suggest the best treatment, but when family members are present they make decisions for the patient if the patient does not have the ability to make decisions himself.

(Choice 5) The patient's spouse, although she is the surrogate decision maker, can no longer make decisions when the patient is extubated and able to communicate for himself.

1 points

A 14-year-old boy arrives for an athletic checkup. Physical examination reveals needle tracks on his arms. On questioning, the patient admits to recent heroin use. When asked if he would consider treatment, he says yes, but only if he can tell his parents that he is going to an academic camp. What is the most appropriate course of action?

1. Detain the boy and admit him to treatment under minor law
2. Inform the boy's parents and leave the decision about treatment up to them
3. Inform the boy's parents and refer him to a treatment center
4. Refer him to a treatment center only ✔
5. Refer the patient to another pediatrician

INCORRECT ✖

The correct answer is 4.

Just as minors are exempt from parental consent or involvement when they are treated for sexually transmitted diseases and pregnancy counseling, they may also undergo drug rehabilitation without parental knowledge.

(Choice 1) Patients may not be forcibly detained except when they are an immediate risk to themselves or others.

(Choice 2) The boy has the right to confidentiality when seeking drug rehabilitation.

(Choice 3) The boy has the right to confidentiality when seeking drug rehabilitation.

(Choice 5) Referring the patient to another pediatrician would be unethical and non-beneficial for this patient. It is important to communicate with the patient and allow him to make decisions for himself.

1 points

A 93-year-old man is transferred to the emergency department after staff at the long-term care facility note confusion and agitation. He takes many medications, including insulin and a glipizide for diabetes and a β-blocker for hypertension. On examination the patient mumbles incoherently when not spoken to and yells at the speaker when directly addressed. His temperature is 38.2°C (100.8°F), respiratory rate is 28/min, blood pressure is 135/88 mm Hg, pulse is 58/min, and oxygen saturation is 72% on room air. A hospital staff member reminds the physician that the patient's chart contains a signed DNR order. Which of the following is the most appropriate next step in management?

1. Culture of blood, urine, and sputum
2. Haloperidol administration
3. No intervention out of respect for the DNR order
4. Oxygen by nasal cannula ✔
5. Serum glucose measurement

INCORRECT ✖

The correct answer is 4.

Attention in the emergency department must first be directed to "the ABCs" (Airway, Breathing, Circulation). Because he is conversant, the patient's airway is intact. His respiratory rate indicates some distress, and his oxygen saturation is low. Oxygen supplementation via mask or nasal cannula is in order, and it is possible that this may be sufficient to begin to improve the patient's mental status while other problems are sought and addressed. DNR does not mean "do not treat." Taken literally, a DNR order only applies after cardiac arrest has occurred, although in practice some actions that may be undertaken prior to cardiac arrest (e.g., endotracheal intubation) may be considered resuscitative. DNR orders may sometimes be written as DNR/DNI, if that is the patient's wish, to help ease confusion.

(Choice 1) Multiple cultures may reveal an underlying infection, but attention must first be paid to "the ABCs" (Airway, Breathing, Circulation).

(Choice 2) Haloperidol administration may be necessary later in the patient's treatment, but in this patient attention to and stabilization of "the ABCs" should be addressed first.

(Choice 3) The patient requires evaluation and treatment, not resuscitation. Therefore, the DNR order is not yet in force.

(Choice 5) Serum glucose measurement would be warranted and could be instructive, but attention must first be paid to "the ABCs."

1 points

A 10-year-old boy is brought into the emergency department after an injury and is bleeding profusely. His parents arrive soon afterward, and state that they are Jehovah's Witnesses and do not consent to giving blood to their child, even though to fail to do so threatens the child's life. The child, awake and receiving pain medications, agrees with his parents and requests that he receive no blood. Which of the following is the next step in treatment?

1. Attempt to save the child, but honor the child's wishes and give no blood
2. Attempt to save the child, but honor the parent's wishes and give no blood
3. Get a court order, and then give the child blood
4. Give the child blood immediately, as needed ✔
5. Refuse to treat the child with those restrictions placed

INCORRECT ✖

The correct answer is 4.

Treatment can be initiated on the basis of legal precedent. This patient is 10 years old and is not emancipated. Legally, he does not have the ability to refuse treatment. His parents cannot refuse treatment for him if that refusal will pose a serious health risk.

(Choice 1) Not giving blood is withholding life-saving treatment. Legally, a physician can give blood to a minor against would be hastening the child's death.

(Choice 2) Not giving blood is withholding life-saving treatment. Legally, a physician can give blood to a minor against his and his parents' wishes when to not do so would be hastening the child's death.

(Choice 3) In a less life-threatening situation, a court order should be obtained to treat the minor against his parent's wishes. Under these emergent circumstances, it is necessary to treat the patient first, and is legal to do so.

(Choice 5) Refusing to treat would be to give in to the parents' demands, thus hastening the child's death.

1 points

A 32-year-old woman presents to her primary care physician's office complaining of dysuria, urgency, and frequency. The physician quickly scribbles a prescription for antibiotics, and the patient takes it to the pharmacist, saying, "Darn urinary tract infection again." A few hours later, the pharmacist contacts the physician's office because she notices that the amount of antibiotics the physician prescribed is 10 times the usual dose given for urinary tract infection. The physician admits that she was distracted by having so many patients waiting to be seen and must have accidentally added an extra zero. What is the most appropriate next step for the physician?

1. Ask the pharmacist to explain the error to the patient
2. Call the patient, explain what happened, and apologize for the error ✔
3. Make a note to be more careful about double-checking prescriptions in the future
4. Thank the pharmacist and return to seeing patients; she can tell the patient about the error next time she sees her because no harm was done
5. Thank the pharmacist and return to seeing patients; the pharmacist will tell the patient about the error

INCORRECT ✖

The correct answer is 2.

The physician has an obligation to fully disclose any errors made in patient care. The most effective and responsible way to do this is to call the patient immediately, explain what happened, and apologize. This is particularly easy in this case because no harm was done. Furthermore, acknowledgment of an error and an apology can help the physician avoid litigation.

(Choice 1) It is the physician's responsibility to disclose the error directly to the patient.

(Choice 3) Although this is a good practice, the physician should also inform the patient of the error.

(Choice 4) Even though no harm was done with this error, it is appropriate and responsible to inform the patient about the error. By doing this, the physician can also enlist the help of the patient in preventing further errors because the patient can be more vigilant about her care and detect future errors. Medical errors due to human faults are inevitable, and it is appropriate to do anything possible to help prevent errors in the future.

(Choice 5) It is the physician's responsibility to disclose the error directly to the patient; she should not rely on someone else to do so.

1 points

A 75-year-old man is in a persistent vegetative state following a large intracranial bleed secondary to an arteriovenous malformation. Two advance directives are in the chart. One is a living will stating that the patient requests withdrawal of life-sustaining treatment if he were to ever be in a vegetative state. The other is a durable power of attorney form stating that his brother is the legally designated surrogate health care decision maker. After reading these forms, the brother approaches the physician and requests that the medical team continue to should the medical team proceed?

1. Medical team should consult the hospital ethics committee
2. Medical team should continue to feed and hydrate the patient but not provide additional care (e.g., antibiotics if the patient develops an infection)
3. Medical team should continue to treat, feed, and hydrate the patient
4. Medical team should let a court decide how to proceed
5. Medical team should seek out the opinion of the next closest family member to resolve the issue
6. Medical team should withdraw all treatment ✔

INCORRECT ✘

The correct answer is 6.

A living will is a legal document written by the patient dictating the patient's wishes about withholding or withdrawing life-sustaining treatment in the event of a terminal disease or a persistent vegetative state. In this case, the patient meets criteria for persistent vegetative state and therefore the medical team should follow the patient's written request and withdraw life-sustaining treatment. If the living will were not present, the surrogate health care decision maker would have had authority to dictate how to proceed with treatment. Although surrogates should typically make decisions consistent with the stated wishes of the patient, this case highlights the importance of patients making their wishes known in a format such as the living will.

(Choice 1) The hospital ethics committee does not need to be consulted because the living will clearly states the appropriate course of action for the given clinical situation.

(Choice 2) According to the living will, all life-sustaining treatment should be withdrawn.

(Choice 3) In this case, the patient meets criteria for persistent vegetative state and therefore the medical team should follow the patient's written request and withdraw life-sustaining treatment.

(Choice 4) The court does not need to be involved because the living will clearly states the appropriate course of action for the given clinical situation.

(Choice 5) Although a close family member should be consulted for decision making if a living will or designated health care proxy is not present, both are available and the living will in this case dictates care.

1 points

A primary care physician is caring for a patient with stage IV ovarian cancer. The woman, who has chosen to participate in hospice care, asks the physician to give her "something to end it all." Which of the following is the most appropriate next step for the physician?

1. Call the patient's daughter and explain her mother's request
2. Discuss with the patient her feelings and identify why she is asking for life-ending medication ✔
3. Provide the patient with a prescription for narcotics
4. Refer the patient to a psychiatrist
5. Tell the patient that her request is shocking and such medication will not be provided

INCORRECT ✖

The correct answer is 2.

Taking time to understand a patient's emotions and reasons for asking for life-ending measures is the correct answer. Understanding why the patient has made such a request will help address the underlying problem.

(Choice 1) Calling the woman's daughter without her permission violates physician's next step. The physician should discuss the problem with the patient and call family members only with the patient's permission.

(Choice 3) Physician-assisted suicide is unethical and illegal throughout the United States, except in the state of Oregon. The physician should not provide the patient with medication that is intended to be life ending.

(Choice 4) Before immediately referring the patient to another physician, it is most appropriate to understand her emotional state and identify her underlying problem.

(Choice 5) Passing judgment on the patient is not the most appropriate step and should be avoided. The physician should gain an understanding of the woman's position in a nonthreatening, nonjudgmental manner.

1 points

An academic internal medicine physician does nephrology research while maintaining a small outpatient private practice. In the course of his reading he learns of a promising new drug with glucose levels in diabetes. He decides to invest in the company that makes this drug (and others) by purchasing approximately $2,000 worth of stock in it. His total stock portfolio is worth approximately $75,000. He is not on the payroll of this company, nor has he received any consulting fees or speaker fees for seminars sponsored by this company. What level of disclosure is most appropriate for this potential conflict of interest?

1. No disclosure is necessary
2. Telling all his patients that he owns this stock ✔
3. Telling only diabetic patients for whom he decides to prescribe the drug that he owns this stock
4. Telling only his diabetic patients that he owns this stock

INCORRECT ✖

The correct answer is 2.

A central principle of bioethics is that the physician has a fiduciary relationship with patients, meaning that physicians have a responsibility to act in a patient's best interest. This responsibility extends to disclosures of conflicts of interest, in which professional obligations are influenced by personal interest. In this example the physician owns stock in a pharmaceutical company that makes a number of drugs. Disclosures should be made to any and all affected parties, including his patients. Because conflicts of interest may affect the quality of research reported, disclosures must be made to institutions and groups involved with research such as journals reviewing investigators' manuscripts and scientific meetings at which one might present.

(Choice 1) Disclosure is certainly necessary. While the American Medical Association code of ethics defines a limit to the monetary value of gifts received, it does not set a similar limit on other potential conflicts of interest such as stock. Even though this stock represents a small portion of the physician's overall portfolio, a potential conflict of interest the appropriate disclosures.

(Choice 3) The company makes more than this diabetes medication, so conflict of interest disclosures should be made to all patients.

(Choice 4) The physician may have been attracted to this company's stock because of the medication for diabetes, but we are told that the company makes other drugs as well; thus all patients must hear about this conflict of interest.

1 points

A 46-year-old man with advanced pancreatic cancer is hospitalized following a pancreatic duct stent placement. He has recently been told that he is not a candidate for a Whipple procedure. His previously marked jaundice has improved, but he is experiencing ongoing 8 of 10 abdominal pain. The patient was divorced 6 years ago, and his parents are his only family. Since his procedure, the patient has asked several members of the medical team to help him end his life. Which of the following is the most appropriate next step?

1. Admit this patient to hospice care
2. Call patient's family and inform them of patient's request
3. Consult the psychiatry service about patient's ability to make medical decisions
4. Evaluate pain management ✔
5. Increase opioid dosage with the intent of causing respiratory depression

INCORRECT ✖

The correct answer is 4.

Inadequate pain control and comorbid depression are the two most common causes of such a request by a patient, and both should be evaluated in this situation.

(Choice 1) Although admission to hospice care may be necessary for this patient to control pain and provide adequate support for the patient, such major decisions should not be made in the setting of poor pain management.

(Choice 2) The patient's family should not be informed of this unless the patient has made an active attempt on his life and a medical decision that the patient is not able to make is necessary. It is illegal to comply with a patient's requests for euthanasia.

(Choice 3) The patient may be temporarily unable to make medical decisions but psychiatry's involvement should be focused on the patient's ability to cope with his diagnosis.

(Choice 5) Pain control should be appropriate to the disease process. It is ethical to provide palliative care even if it may hasten the patient's death, but it should not be the cause of death. Physician-assisted suicide involves a physician writing a prescription for a drug that will allow the patient to end his or her own life. Currently, this is legal only in Oregon and only after specific legal procedures have been followed.

1 points

You are caring for a 78-year-old man in the cardiac intensive care unit. He was admitted for chest pain, and his admission cardiac troponins are elevated. The interventional cardiologist is planning to take the patient for emergent cardiac catheterization. While you are discussing the diagnosis and planned treatment with the patient, he states that he is afraid of dying during the procedure and asks you to pray for him. Assuming your religious beliefs are different from those of your patient, which of the following would be the most appropriate reply?

1. "I would be happy to call our hospital chaplain, but you will have to wait until after the procedure to visit with him."
2. "I do not personally share your religious beliefs, but I will pray to my own God on your behalf."
3. "I understand that you are afraid and that your beliefs are important I will keep you in my thoughts during your procedure." ✔
4. "Unfortunately, we are not of the same faith, so my prayers will not help you."
5. "Praying is fine, but it has not been scientifically shown to be efficacious."

INCORRECT ✖

The correct answer is 3.

With respect to religious beliefs in the doctor-patient relationship, physicians should recognize and respect the belief system of their patients regardless of their own beliefs. Patients should be treated with the utmost quality of care no matter if their beliefs are similar to or different from those of the treating physician. Religion should enter the doctor-patient relationship only at the behest of the patient, and religious topics should not be forced upon the patient by the physician. The religious beliefs of the patient are to be used to help ease the patient's burden and are never to be criticized or disagreed with.

In Australia, there are numerous belief systems, including those who do not have a religion, and frequently the beliefs of the physician and the patient are not the same. In the interests of doing no harm, the physician should agree, at least in a generic sense, to keep the patient in their thoughts/prayers.

(Choice 1) It is absolutely appropriate to involve a chaplain in the care of a religious patient. Chaplains serve an essential role in patient care and frequently assist with advance directive and "do not resuscitate" issues, as well as end of life care. However, when a patient is rushed off for an emergent procedure, it is more appropriate to offer your own personal consolation to the patient.

(Choices 2 & 4) Disagreeing with the patient in terms of personal beliefs would be inappropriate at this time in the doctor-patient relationship. In fact, it is rarely appropriate to interject your own beliefs regarding religion into this relationship without solicitation of your ideas by the patient.

(Choice 5) There is no scientific proof that prayer can help in acute medical situations, but it has been shown that practicing a faith and regularly attending religious services can have a positive effect on overall mortality in the general population. However, in the above situation, this response would be disrespectful and may cause the patient further distress.

1 points

A 28-year-old pregnant woman comes to the physician for a regularly scheduled prenatal appointment. During the visit, the physician decides to order some blood work and perform a 1-hour glucose challenge test as she is at the beginning of her third trimester. The patient becomes apprehensive when this is mentioned and begins to ask questions about the tests. When asked about her concern, she confides that the fetus is not her husband's child. Her husband is also the physician's patient, and she asks the physician not tell him about this because "it will ruin everything." Which of the following is the most appropriate reply in this situation?

1. I will not tell your husband, but please considertelfing him the truth. ✔
2. I am legally obligated to tell your husband since he is also a patient of mine and I must look out for his best interests.
3. will not tell your husband, but he may abuse you or your child if he ever discovers the truth.
4. I need to call the authorities because the biological father is obligated to pay child support.
5. I cannot continue to treat you knowing that you are keeping this a secret. You will have to find another physician.

INCORRECT ✖

The correct answer is 1.

This patient has confided that the child she is pregnant with is not her husband's. The husband is also a patient, but the information disclosed by his wife should remain confidential unless she decides otherwise. Patient confidentiality is protected vigorously by the medical community because patients must feel free to disclose details on all aspects of their lives so that physicians can make educated diagnoses and treatment decisions. Patients will not disclose important details related to their health, such as intravenous drug abuse, if they fear that the information is not kept confidential.

There are only 4 situations where disclosure of patient information without consent of the patient is allowable:

1. Suspected child or elder abuse (laws for spousal abuse vary by state)
2. Gunshot or stabbing injuries
3. Diagnosing a reportable communicable disease
4. When patients threaten to physically harm themselves or others and have reasonable ability to carry out the threat in the near future

(Choice 2) The husband has no legal right to know information that was disclosed in the physician's office in confidence. In addition, under current law, a father has no legal right to know if a child is his unless he is ordered to make payments to support that child.

(Choice 3) There is no indication that the patient's husband abuses the patient or will ever mistreat her or her children.

(Choice 4) The biological father of a child is not obligated to pay child support unless the mother desires this support and sues for it. The physician does not play a role in this decision-making process or in securing child support for the mother.

(Choice 5) Threatening to stop treating patients if they do not adhere to the physician's personal morality or beliefs is inappropriate. If a physician were to discharge a patient from care under such conditions without finding a suitable replacement, it would be considered abandonment.

1 points

You are caring for numerous patients on a busy inpatient service at a regional Veterans Administration hospital. You are called at three o'clock in the morning by nursing staff who state that one of your patients who was admitted for chest pains is suffering from acute-onset watery diarrhea. When you go to see the patient, he states that all of this began a few hours after he drank "a big jug of clear watery stuff' that the nurse gave to him. In reviewing his chart, you find that you accidentally prescribed an electrolyte bowel preparation for your patient with chest pains rather than for the intended patient with a gastrointestinal bleed who is scheduled for a colonoscopy in the morning. The patient states that he feels good because he had not had a bowel movement in the last two days. What is the best course of action?

1. Immediately inform the patient that you mistakenly ordered a bowel preparation for him and explain what has happened. ✔
2. Immediately call risk management and ask for advice on whether to inform the patient of this error.
3. There is no need to tell the patient about the error because he benefited from the intervention.
4. The ethics committee must be consulted to facilitate a discussion of whether the patient has been harmed or has benefited from this error.
5. Inform the patient of the error immediately and offer to compensate him financially for his suffering.

INCORRECT ✖

The correct answer is 1.

In the clinical vignette described, a physician has inadvertently prescribed a relatively benign, though unpleasant, intervention for the incorrect patient. The patient will likely not suffer lasting damage from this mistake, and it even seems that he may have benefited from it with respect to his constipation. Regardless of all of these considerations, the most appropriate thing to do when a medical mistake has been made is to inform the affected patient about the mistake. Errors in medicine result from difficulties with medical systems, the work hours and schedules forced upon physicians by themselves or the system, diagnostic uncertainties, deficits in the knowledge base of providers and incorrect judgment or interpretation of information. Many mistakes are inevitable, and all physicians make mistakes. Physicians must always be truthful with their patients, especially in situations in which a patient suffers consequences because of a physician's mistake or erroneous judgment; even trivial medical errors should be disclosed to patients. It has been shown that patients are less likely to bring litigation if physicians are forthcoming with them immediately when any errors are made; patients in situations where a medical error has been made are frequently angrier about being lied to or having the truth withheld from them than they are about the mistake itself.

(Choices 2 & 4) Calling risk management or the ethics committee are sound choices if there is a compelling reason to not tell a patient about a certain detail, but reasons to withhold information from patients are rare. Patients should always be immediately informed of medical errors. Involving risk management or the ethics committee will frequently be an incorrect answer because you are expected to be able to handle situations yourself.

(Choice 3) Whether or not the patient benefited from the erroneous intervention is irrelevant. The fact that the patient feels better after the intervention means they are less likely to be angry when informed of the mistake, but this does not mean that the physician is no longer obligated to inform the patient of the mistake.

(Choice 5) While it is appropriate to immediately inform the patient of the error that has been made, offering to personally compensate the patient for the error is completely inappropriate. There is no situation where this is reasonable unless a court has found against you in a civil lawsuit and has ordered you to financially compensate the patient. When serious mistakes have been made hospitals will frequently not charge a patient for their stay, but this is not the business of the physician.

1 points

A 45-year-old Caucasian male presents to your clinic as a new patient. He complains of a sore throat, a mild cough productive of scant yellow sputum, clear rhinorrhea and a low-grade fever. At the end of the history the patient requests a prescription for antibiotics to cure his infection. Physical exam reveals a temperature of 99° F and coarse upper airway breath sounds. You tell the patient that he likely does not need antibiotics, and you educate him about your rationale. After listening to your explanation, the patient still insists that he needs antibiotics stating "my old doctor always gave me antibiotics for this." Which of the following options is the best course of action at this point?

1. Respect patient autonomy and prescribe antibiotics as requested
2. Prescribe antibiotics because beneficence dictates that you act in the patient's best interests.
3. The placebo effect is powerful; prescribe antibiotics to improve the doctor patient relationship.
4. Do not prescribe antibiotics because the patient is likely being influenced by pharmaceutical company advertising.
5. Do not prescribe antibiotics because of the potential risks of antibiotic therapy. ✔

INCORRECT ✖

The correct answer is 5.

Antibiotic resistance is a serious issue for health providers worldwide. Overuse of broad-spectrum antibiotics, use of antibiotics for diseases that are not bacterial in etiology and improper use of antibiotics by patients have all been cited as causes for antibiotic resistance. Illnesses where antibiotics are generally improperly prescribed have been targeted by physicians and scientists; two of these conditions include viral upper respiratory tract infections and acute otitis media, a disease that may be bacterial in origin but typically spontaneously resolves without treatment. The patient described in this question stem is likely suffering from a viral upper respiratory tract infection. Fever and change in the color of the sputum are typically observed in patients suffering from viral airway infections. This clinical scenario is not uncommon, and it is essential to describe to patients that antibiotic therapy is not without risks. Antibiotic drugs are associated with a huge number of adverse reactions from gastrointestinal upset to photosensitivity to modification in the functioning of the cy1ochrome p450 enzymes, which may cause toxicities from other drugs. Additionally, antibiotics commonly cause a disruption of the gut flora and create a scenario where Clostridium difficile may proliferate and cause colitis.

(Choice 1) Patient autonomy provides for patients to guide their own health care by making decisions about accepting or refusing treatment. This concept does not allow patients to make demands of the physician that must be met. The role of the physician is to educate the patient about their illness and the potential treatments and allow the patient to make decisions based on that information.

(Choices 2 & 3) Acting in the patient's best interests, the concept of beneficence, means that a physician should be guided by what is best for the patient, not what is best for the physician, hospital, family members, and etcetera. The best treatment for the patient in this question stem is to refuse to prescribe antibiotics and to explain the rationale for this decision. The doctor-patient relationship is ultimately best served by doing what is right for the patient.

(Choice 4) While it is not unreasonable to think that a patient may be influenced by the numerous pharmaceutical advertisements in society today, this is not the proper reason to refuse to provide a certain therapy. If a patient comes to your office asking for a particular drug that they saw advertised, and that drug is a reasonable choice in your judgment as the physician, it is completely acceptable to prescribe the drug that the patient has requested.

1 points

You are on the inpatient service at a community hospital. One of your patients is a 78-year-old female who you have just diagnosed with pneumonia. She has a past medical history significant for severe coronary artery disease, diabetes, and chronic low back pain from degenerative joint disease. She has been homebound and bedridden for years. You present her with her diagnosis and your plan to treat her with antibiotics, and she replies that she does not wish to be treated. You explain that if this infection is not treated she will likely die from an overwhelming infection. She voices understanding of her illness and the possible consequences of not treating it, and she still continues to refuse treatment. Who should make the decision about whether or not to administer antibiotics to this patient?

1. The patient's adult son
2. The patient's spouse
3. A judge
4. The patient ✔
5. The hospital ethics committee

INCORRECT ✖

The correct answer is 4.

Physicians are trained to diagnose and treat disease, and it can be difficult when a patient refuses therapy that the physician knows can be lifesaving. This vignette presents a case of an elderly woman with numerous medical comorbidities. She has been homebound for years, but she has retained her mental faculties. When the physician in the vignette offers treatment to this patient she refuses. The physician behaved in an appropriate manner by explaining the patient's diagnosis and the treatment plan completely to the patient. The patient demonstrated her competence by verbally showing understanding of her situation and the possible consequences of not treating her infection. Competence is defined as the ability to understand a situation and the possible consequences of decisions made in that situation. In this case, the patient recognizes that refusing treatment will likely lead to her demise. A competent patient who has been properly informed of their situation who is also not psychologically incapacitated is responsible for all medical decisions that affect their body.

(Choices 1 & 2) If the patient were incapacitated or incompetent, then decision making would fall on the next of kin. The spouse is the immediate next of kin, but when there is no spouse or the spouse is unable to make decisions, the next of kin is an adult child.

(Choice 3) A judge intervenes in medical care decisions when there is no next of kin available who is competent to make medical decisions for an incapacitated or incompetent patient. In cases such •as these the court will appoint a guardian to act on the patient's behalf.

(Choice 5) The hospital ethics committee serves to make recommendations in situations where a decision about care is not straightforward, but they cannot legally act to make decisions for the patient as they have not been designated guardians by the court.

1 points

A 56-year-old man comes to the emergency department with chest pain that began 30 minutes ago. He describes the pain as a tight, squeezing sensation that radiates to the left arm. He also complains of increased sweating and nausea. His electrocardiogram shows multiple-lead ST-segment elevation, and cardiac troponin levels are high. While the patient is undergoing emergent cardiac catheterization, the physician is approached by a distraught woman accompanied by 2 tearful children. The woman says that the patient is her husband and asks about his condition. When asked for her identification, she looks through her purse and replies, "I'm sorry, I must have left it at home in the rush to get here. Please tell me if my husband is okay." Which of the following is the most appropriate course of action?

1. Discuss end-of-life care and "do not resuscitate" orders with the woman because of the seriousness of the patient's condition.
2. Do not discuss the patient's status with the woman as she may not have the patient's best interest in mind.
3. Do not discuss the patient's status with the woman as there is no way to be sure she is the patient's spouse.
4. Explain to the woman that she will have to wait until the patient is capable of giving permission to share his medical information.
5. Inform the woman of the patient's general condition as rt is likely to be m the patient's best interests. ✔

INCORRECT ✖

The correct answer is 5.

While this patient is undergoing emergency treatment for acute myocardial infarction, a woman who is presumably his wife arrives at the hospital and asks about his medical condition. The Health Insurance Portability and Accountability Act (HIPAA) is designed to protect patient privacy, and in many situations, the patient's explicit consent is required in order to share medical information. However, a health care provider is allowed to share information without explicit permission in the following circumstances:

- The patient is present and does not object to sharing the information when given reasonable opportunity. For instance, when family is visiting, the physician can ask if it is a good time to discuss medical concerns and proceed to do so if the patient does not object
- The patient is not present, and the provider determines, based on professional judgment that sharing information is in the patient's best interest

In the absence of any specific statements made by this patient, there is no reason to believe he would object to his family being informed of his medical status. Furthermore, there is nothing in the question stem to shed doubt on the woman's claim to be his wife. Therefore, even though the patient is not present, the physician should exercise professional judgment and provide the patient's wife with information about his condition. However, the shared information should be limited only to the general details of his acute condition and prognosis. Specific information (eg, if this patient's myocardial infarction was induced by cocaine use) should be kept confidential until there is time for further discussion with the patient.

(Choice 1) Discussing "do not resuscitate" orders and wishes for end-of-life care is an appropriate conversation to have with a patient during the admission process for any acute or potentially life-threatening illness. It is inappropriate, however, to leave the patient out of these discussions as the patient has capacity and is the primary decision maker.

(Choices 2 & 3) There is no evidence to suggest that the woman is not who she claims to be or that she is acting against the patient's best interest. HIPAA does not require proof of identity; therefore, physicians should use their best judgment when dealing with presumed friends and family members.

(Choice 4) Telling the woman she has to wait could aggravate the family's distress and could cause the patient additional grief. In this situation, informing the woman of the patient's general condition is both ethically and legally appropriate.

1 points

A medical intern is working on the inpatient wards at a busy community hospital. During rounds, the team evaluates a new patient who was admitted for an exacerbation of congestive heart failure. The patient's past medical history includes atherosclerotic coronary artery disease, diabetes mellitus and osteoarthritis. The attending physician asks the intern to start a beta-adrenergic antagonist on this patient. After rounds, the intern recalls that during medical school she learned that beta-adrenergic antagonists can blunt the symptoms of hypoglycemia in a diabetic patient. What is the most appropriate course of action?

1. Do not administer the beta-adrenergic antagonist because the most important principle in medicine is to "do no harm.
2. Discuss concerns about the administration of this drug with the patient, and let the patient decide whether to take the drug or not.
3. Discuss concerns about this drug with the nurses, ask for their input, and ask them to keep a close eye on the patient to avoid hypoglycemia on this drug.
4. Administer the drug because the attending physician is in charge of the team and to undermine his authority is unethical.
5. Do not administer the drug until you have discussed your concerns with the attending physician and asked him how to proceed. ✔

INCORRECT ✖

The correct answer is 5.

As a physician on a medical team you do not need to blindly follow the orders of attending physicians or physicians who have more seniority. As part of the educational process it is essential to attempt to understand WHY things are being done. While thinking about issues presented to your team you may encounter a problem or have a question why something is being done. It is in both your best interest as well as the best interest of the patient to resolve potential problems before proceeding. This concept applies to the relationship between residents and attendings, two physicians working in parallel such as an anesthesiologist and a surgeon, and even the relationship between a medical student and the medical staff. Physicians are not infallible, and if a potential problem is discovered the best way to address it is to respectfully bring the issue up with your superior or your colleague and ask why a particular decision was made. In the case presented the attending physician may feel that the cardioprotective benefit of a beta-adrenergic antagonist outweigh the potential risk of an un-sensed hypoglycemic episode.

(Choice 1) Refusing to follow the suggestions of an attending physician or a colleague without first consulting them (if they are directly responsible for the care of the patient in question as in this case) is unprofessional behavior.

(Choice 2) It is both unprofessional and unethical to make the patient decide between your recommendation and that of your supervising physician. The patient has no medical training and has little basis on which to make such a judgment.

(Choice 3) Discussing the issue with the nursing staff is inappropriate because they have not been trained to make treatment decisions such as these. Though seasoned nurses will have acquired a considerable amount of medical knowledge, it is not their job to decide between the differing opinions of two physicians.

(Choice 4) Blindly following an order from an attending physician or a colleague when you have a reservation about that order or feel that that action may cause harm to the patient is unethical. The best course of action is to discuss the issue with the other physician and come to a consensus together.

1 points

A 13-year-old male presents to your office accompanied by his mother for a routine physical exam and follow up of his type 1 diabetes mellitus. The child has an even affect but appears irritated, and the mother greets you as you enter the exam room by exclaiming "Here's the doctor, he's going to tell you how badly you've been doing." Laboratory tests show a random blood glucose of 350 mg/dl and an HbA1c of 9% (normal is less than 6 -7 %). When you ask the patient how he is doing with his insulin, the mother hurriedly shouts "He never remembers to use it!" You ask about his diet and his mother puts her hands on her hips, glaring at her son and growls "Pizza and cola, pizza and cola … " What is the next best course of action?

1. Increase the patient's morning and evening long acting insulin and recheck in three months
2. Call the department of child protective services to arrange a home visit for likely child abuse and Munchausen disorder by proxy
3. Tell the patient's mother that you need to discuss some things with her son alone, and ask her if she minds waiting m the waiting room for a moment ✔
4. Tell the mother that if she does not settle down you will need to ask her to leave

INCORRECT ✖

The correct answer is 3.

In this clinical vignette, you are evaluating a patient who is doing poorly on your current treatment regimen for his type 1 diabetes mellitus. His laboratory tests indicate an average blood glucose over 200 mg/dl (HbA 1 c 9.0%) and confirm that his present therapy is suboptimal. You are unable to ascertain why his treatment is ineffective because the patient's mother does not allow the patient to speak. Furthermore, the patient's mother is establishing a hostile environment with her posture and tone of voice. If the mother remains in the examination room, it is unlikely that you will be able to have an honest and productive discussion with him about his treatment. He will either agree with his mother to pacify her or simply let her speak for him. The best course of action is to politely ask the mother to wait outside while you discuss issues with the patient one-on-one. Additionally, during adolescence it is also important to ask the parents to leave the room so you can discuss issues such as drugs, alcohol, tobacco use, and sexual activity with the patient candidly.

(Choice 1) Increasing the patient's insulin, tailoring their insulin dosing to their lifestyle or having him speak with a dietician are legitimate treatments for patients with diabetes who are having trouble maintaining their blood glucose in the appropriate range. At this point in the case, though, simply increasing the patient's insulin dose is inappropriate because you do not know if he is administering his present doses properly and on the correct schedule.

(Choice 2) In this clinical vignette there is no evidence of child abuse or Munchausen syndrome by proxy. Munchausen syndrome by proxy is a condition where a caregiver, usually a mother, deliberately induce disease in a person they care for, usually a child, for attention and secondary gain.

(Choice 4) Threatening the mother or responding to her inappropriate behavior with inappropriate behavior on your part is not consistent with professional interaction. In situations such as these where an environment is hostile, it is best to recognize your feelings about the situation and limit countertransference of your emotions into the interaction.

1 points

A 27-year-old man sustained a back injury at work 9. months ago. He is a mover for a national relocation company. Magnetic resonance imaging confirmed a herniated disc. The neurosurgeon concluded that surgery was not indicated. His primary care physician recommended physical therapy, and he was prescribed oxycodone with acetaminophen for pain relief during the recovery period. The patient has now completed physical therapy, and follow-up magnetic resonance imaging indicates that the herniated disc has regressed. Nonetheless, he continues to report a significant amount of pain and is requesting refills on his pain medication with a dose increase. In the last month, he has been to the emergency department on 2 separate occasions requesting pain medication due to "running out" prior to his next scheduled refill. The patient reports that 2 pills per day are no longer effective. Despite having financial difficulty, he is not working as he is in "too much pain." He is reapplying for long-term disability, which was already denied once. Which of the following statements by the patient's primary care physician would be most appropriate at this time?

1. Additional testing is needed to identify the source of your pain.
2. I am concerned about your use of pain medication. ✔
3. I am concerned that stress and your inability to work are amplifying your pain.
4. I would like to refer you to a pain specialist.
5. Right now, the priority is to treat your addiction to pain medication.

INCORRECT ✖

The correct answer is 2.

Pain is subjective, and physicians must use clinical judgment to balance effective pain management with prevention of drug misuse and abuse. Prescription opioid abuse has become a significant clinical problem in recent years. Signs of misuse include not taking medication as prescribed, early refill requests, accessing drugs from multiple doctors or illicit sources, requesting higher doses, and refusing alternate pain management strategies.

This patient is requesting an increase in pain medication despite objective findings that suggest improvement in his condition. He is also showing signs of a possible opioid use disorder, ie, obtaining medications from multiple physicians and developing tolerance (higher doses needed to provide the same effect). The most appropriate action, given the circumstances, would be to express concern regarding the patient's escalating use of opioid medication and explore possible reasons for it. An empathic, nonjudgmental attitude that validates the patient's concern about pain control is essential to developing a collaborative treatment approach.

(Choice 1) In addition to his primary care physician and neurosurgeon, the patient has been assessed by 2 emergency physicians and has had repeated spinal imaging. Further testing at this point is not likely to yield an identifiable pain source in the absence of additional information (ie, a new injury or accident).

(Choice 3) Stress can amplify a patient's perception of pain. However, this statement does not address the concern that this patient is misusing opioid medication.

(Choice 4) The initial approach would involve educating and engaging the patient in a discussion about opioid misuse. If no correctable causes for his overuse can be identified, and he continues to require escalating doses of medication, referral to a pain specialist or other physician with experience in managing chronic opioid therapy would be appropriate.

(Choice 5) Although this patient needs further assessment for possible opioid use disorder, it would be premature to recommend treatment for addiction. The physician should first validate the patient's concerns about pain and educate him about the risks of misuse.

1 points

The sports physician for a collegiate football team is asked to assess the team's starting quarterback for complaints of fever, sore throat, and malaise. His temperature is 39.4 C (103 F), blood pressure is 120/80 mm Hg, pulse is 90/min, and respirations are 14/min. Physical examination reveals tonsillar exudates, cervical lymphadenopathy, and splenomegaly. Blood smear shows atypical lymphocytes and a Heterophile antibody (monospot) test is positive. While educating the patient about his condition, the physician explains that he should not play contact sports for a few weeks due to the risk of potentially life-threatening splenic rupture. The patient begs the physician not to tell his coach and to allow him to return to play sooner. He explains that the team and coaches are counting on him, and he is also hoping to be noticed by professional scouts. Which of the following is the most appropriate course of action?

1. Allow the patient to participate to increase his chances of playing professionally
2. Allow the patient to play as it is in the team's best interest
3. Do not inform the coach of the player's condition, as this would violate the patient's privacy
4. Inform the coach of the medical recommendation that the patient be restricted from playing ✔
5. Respect the patient's right to make the ultimate decision about his health care and do not inform the team

INCORRECT ✖

The correct answer is 4.

This patient presents with classic findings of infectious mononucleosis, which is caused by the Epstein-Barr virus. Patients present with fever, sore throat, fatigue, lymphadenopathy, tonsillar exudates, and sometimes hepatosplenomegaly. Diagnosis is confirmed with a positive monospot test and treatment is mainly supportive. Patients are advised to refrain from athletic activity to avoid splenic rupture, a rare but serious and potentially life-threatening complication that can occur with no or very minor trauma. By playing tackle football, this patient has a high risk of suffering abdominal trauma with possible splenic rupture. Current guidelines recommend that athletes wait at least one month before returning to contact sports.

The overriding duty of all physicians, including team physicians, is to protect the health and safety of the patient. Preferences expressed by the athlete, team, coaches, or spectators should not influence the physician's decision on critical health issues; the physician's judgment should be guided only by medical considerations. Student athletes typically sign an authorization form permitting the physician to share health-related information with coaches under the Family Educational Rights and Privacy Act. Because the team physician is employed by the university (and not acting as a personal physician), the collected health information is considered part of the student's university record and possesses an exception under the Health Insurance Portability and Accountability Act (HIPAA). As a result, the team physician may communicate with coaches in order to protect a player from further injury based on best medical judgment.

(Choices 1 & 5) Patient autonomy is an important principle in medical ethics, and the team physician should take the athlete's preferences into account in situations with a low risk/benefit ratio. However, when there is substantial risk of severe injury, the athlete's desire to play should not take precedence over his safety and health.

(Choice 2) As an employee of the university, the sports physician is also obligated to act in the best interest of the team. However, the health and safety of the patient should always take precedent over the team's chances of winning.

(Choice 3) College health records on student athletes are not subject to the HIPAA privacy rule. A team physician may disclose injury information to a coach without the student athlete's consent for the purpose of protecting the athlete's health and safety.

1 points

A 34-year-old female who you have treated in your office for years presents for an annual physical exam. During your interview with her, she states that she would like to undergo a bilateral tubal ligation as she does not wish to have children and she is tired of using oral contraceptives. You know that she has been in a relationship with and lived with her boyfriend for over ten years, but the couple have never been married. What is the best way to address this situation?

1. Refer the patient to a gynecological surgeon for her procedure
2. Review the risks and benefits of this procedure and ask the patient if she has discussed this issue with her significant other ✔
3. Inform the patient that sterilization is against your beliefs and educate her about options such as adoption if she were to become pregnant
4. Tell the patient that you cannot make a referral until she brings her significant other to the office so all three of you can discuss this together
5. Tell the patient to wait for menopause as she will likely start to undergo that process within the next five years

INCORRECT ✖

The correct answer is 2.

In this question you are presented with a patient who desires surgical sterilization. She has a significant other, and the question stem does not address if she has discussed this issue with him. Whether or not the couple in question is married is irrelevant; the ultimate decision about what a patient can do with their body lies solely with the patient. Consent from the significant other is not required for decisions such as these, but it is best as a physician to discuss the issue thoroughly with the patient and recommend that she share her decision to undergo this procedure with her loved ones. All patients must be advised by their physician of the risks, benefits, alternatives and contraindications of any procedure they may undergo. Additionally, this patient's decision will limit her ability to later procreate with her significant other. It will also carry the personal risks of undergoing a surgical procedure. Her significant other will likely need to serve a supporting role for her during recovery and if she experiences complications, and if the significant other is informed by the patient of her decision it may be easier for him to accept.

(Choice 1) Immediately referring the patient for a procedure without first discussing the procedure and its social and health ramifications is not proper form.

(Choice 3) The personal beliefs of a physician should not interfere with their care of a patient and should not limit the patient's access to accepted treatment modalities. If you as a physician disagree with a treatment option that a patient wishes to pursue, it is your responsibility to refer that patient to a practitioner who will. Until the patient can be seen by the new practitioner you must continue to provide needed care for them; if you do not that is considered patient abandonment.

(Choice 4) The consent of the significant other is not required for the patient to undergo tubal ligation.

(Choice 5) Telling the patient to wait for menopause is inappropriate. The average age of menopause is 51 years in the Australia and Europe. Smoking causes earlier menopause by a few years.

1 points

A 6-year-old girl and her mother are admitted to an urban trauma center after being involved in a motor vehicle accident. The patients have been severely wounded and have sustained blunt abdominal trauma. Diagnostic peritoneal lavage is positive for blood in both patients. They have a clouded sensorium and neither responds appropriately to questions. The woman's husband (the child's biological father) is contacted by telephone and informed that his wife and daughter have been involved in a car crash. The father tells the physician, "I'm leaving for the hospital right away. My family and I are Jehovah's Witnesses and receiving blood transfusions of any kind goes against our beliefs. My wife can inform you of the specific details, but please make sure not to give any blood transfusions to our daughter." Before the physician can relay any specifics about the family's condition, the father hangs up the phone and repeated attempts to contact him are unsuccessful. The woman and her daughter carry no documentation to confirm their religious beliefs and remain unresponsive to questions. The physician plans to aggressively treat both patients with crystalloid solutions. If either of the patients emergently needs blood products, which of the following is the most appropriate course of action?

1. Administer blood products to both patients against the husband's wishes ✔
2. Administer blood products to the woman because she is an adult but not to the girl because her father's decision must be respected.
3. Seek court orders to administer blood products to both patients.
4. Do not administer blood products to the woman because her husband's decision must be respected but administer them to the girl because she is a minor.
5. Render treatment as necessary; the husband's decision is irrelevant because he does not have durable power of attorney documentation.

INCORRECT ✖

The correct answer is 1.

Adult patients who are competent or have outlined their wishes in a living will have the authority to refuse any form of treatment, including life-saving therapies. In order to express their wishes if rendered incompetent, many Jehovah's Witnesses carry a card that identifies their desire to refuse blood products. The Health Care Consent Act allows a physician to treat a patient without consent in an emergency setting if there is no way to communicate with the patient or their surrogate decision maker and a delay in treatment could cause serious harm. This act allows emergency blood transfusion to preserve the life of an incompetent Jehovah's Witness patient when there is no blood refusal card, no other appropriate treatment option is available, and communication with the patient's surrogate is inadequate.

In this scenario, the husband could not be informed of his wife's critical condition. Although many Jehovah's Witnesses will refuse blood products unconditionally, some patients will accept them in life-threatening situations. It is not acceptable to withhold blood products without confirming that the woman would refuse such treatment when death is otherwise imminent **(Choice 4)**. This requires the availability of reliable legal documentation or a meaningful discussion with the patient's surrogate regarding the patient's beliefs, current condition and prognosis, and the risks of refusing potentially life-saving treatment. In an emergency situation, if there is any doubt in a clinician's mind concerning the wishes of a patient, the best course of action is to treat according to the accepted standard of care.

The authority to make medical decisions on behalf of a minor usually falls to the child's parents or legal guardian. Parents can refuse or discontinue treatments, including life-sustaining treatments, if it is in the best interest of the child. Decisions that are clearly not in the child's best interest should be challenged by medical caretakers, as they have the responsibility to advocate for the best interest of the child. In nonemergency situations, the physician should use available tools to assist in reaching an agreement with the parents (eg, involving religious representatives and ethics committees). If a resolution cannot be reached after respectful discussion, seeking a court order for appropriate care may be necessary. In an emergency, the physician should always provide potentially life-saving therapy to a minor **(Choice 2)**.

(Choice 3) Court approval is not needed for a physician to proceed with emergency life-saving treatment for an unconscious or unresponsive patient. Children have special protections, and life-saving treatment should not generally be denied.

(Choice 5) The husband does not require durable power of attorney paperworkto make medical decisions for his wife and daughter because he is their default next of kin. If the wife wishes someone else (eg, a sibling) to make her medical decisions, then that person is required to present documentation to override the husband's decision.

1 points

A 6-year-old male is examined in the emergency room and found to have a well-demarcated, round burn mark on his thigh. When asked about the burn he says, "That happens every time I'm bad." Which of the following is the best next step in the management of this patient?

1. Contact child protection services immediately ✔
2. Talk to the parents about suspected child abuse and ask for explanations
3. Ask another physician to witness the damage and listen to the patient story
4. Try to convince the child to improve his behavior
5. Send the patient home and schedule an appointment in one week

INCORRECT ✖

The correct answer is 1.

When evaluating the child who is acutely ill or injured, it is important to carefully screen for historical inconsistencies, alarming physical examination findings, or significant sociofamilial risk factors; all three of these issues are commonly associated with physical abuse. The history should initially employ open-ended questions followed by more specific inquiries about how the injuries were incurred. If possible the questions should be asked of the child, with the parents serving as secondary sources. Of particular concern are histories that are implausible, inconsistent, vague, or absent. When the sustained injuries are not well explained by the history, child abuse should rise on the differential.

Physically, the child should be evaluated for characteristic skin lesions, signs of swelling, bony tenderness, unwillingness to use an extremity, retinal hemorrhages, genital trauma, or signs of neglect (eg, un-cleanliness, malnourishment). Strongly concerning are the presence of multiple injuries of different types or in different stages of healing, pathognomonic injuries (eg, cigarette burns), and significant behavioral disturbances (eg, excessive compliance, pseudo maturity).

Of course, it is important to obtain a full medical history for the child, and to remember that findings suggestive of child abuse can be secondary to other causes. Thorough medical, laboratory, and radiologic evaluation is essential to ensure the proper diagnosis is made. Any physician who suspects child abuse has occurred is legally obligated to contact the appropriate government agency (eg, Child Protective Services) to file a formal report. Written documentation of the history and physical examination and of all communication undertaken regarding the issue must be included in the patient chart. Should the child be considered unsafe or in need of emergent medical care, hospitalization is indicated.

(Choice 2) Confronting the parents is a risky endeavor, as they may become argumentative, violent, or flee the hospital with the child in tow. It is therefore preferable to contact Child Protective Services (CPS) immediately once child abuse is suspected. The CPS personnel are specifically trained in child abuse evaluation and intervention.

(Choice 3) Thought must be given to the child's comfort level during such a trying time. It is therefore inappropriate to bring gratuitous medical staff into the examination room to scrutinize the injury or to have the history repeated. Accurate documentation and timely social work intervention is sufficient in this case.

(Choice 4) Placing the blame on the child for the injury incurred is inappropriate.

(Choice 5) Sending the child home without further evaluation or intervention puts the child at risk for additional injury or death.

1 points

An internist is treating a 61-year-old man who has been hospitalized repeatedly over the last 6 months secondary to •a recent myocardial infarction. The patient's condition has slowly improved, although his course was complicated by a pulmonary embolus, urinary tract infection, and hip fracture from a fall during cardiac rehabilitation. During an outpatient clinic appointment, his wife gives the physician a handmade thank-you card containing 4 courtside tickets to a professional basketball game. She says, "My husband and I would like to thank you for everything that you've done. Please accept these tickets and enjoy the game." She tells the physician not to worry about the expense because her husband works at the stadium and gets 4 free tickets per game. She says, "He doesn't really like basketball, so he usually just sells the tickets. But since you have been such a wonderful doctor, we wanted to give you something to express our gratitude." Which of the following statements is the most appropriate response?

1. Thank you so much. I am touched by your very kind gesture. My family and I love basketball and we'll certainly enjoy the game.
2. I appreciate your thoughtfulness and will treasure the card you have made for me. However, it would not be right for me to keep the tickets ✔
3. Thank you very much. My family and I will certainly enjoy the game. But please know that I will always provide you with the best care possible, just like I do for all my patients.
4. I am touched by your kind gesture, but I have a policy of not accepting valuable gifts from patients. Would you mind if I offer them to the office staff?
5. Thank you very much. I do not normally accept valuable gifts for ethical reasons. However, since they did not cost you anything, I would be happy to accept them.

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INCORRECT ✖

The correct answer is 2.

There are varying opinions about the ethics of receiving gifts from patients, but the consensus and professional standard is that it is unethical to accept gifts of significant monetary value. Many medical offices and hospitals implement a no-gift rule to keep things simple; others implement a dollar-amount rule (eg, all gifts must be valued at $10 or less).

Gifts of significant value can place undue financial burden on some patients, but there can also be ethical repercussions even when gifts are given at inconsequential or no expense to the patient **(Choice 5)**. For instance, "generous" patients may be treated preferentially compared to those who cannot afford or procure equivalent gifts. Even a conscious effort by the physician to avoid favoritism could be thwarted through subconscious alteration of the physician's behavior. Moreover, a policy of accepting valuable gifts can have detrimental effects on the physician-patient relationship, regardless of whether favoritism actually occurs. Some patients may perceive the act of gift giving as an obligatory step toward receiving perceived preferential treatment. Many others consider any form of compensation outside of the standard reimbursement process to erode the physician's fiduciary integrity and moral character.

Some general recommendations regarding the acceptance of gifts include the following:

- Cash gifts (including gift certificates or vouchers) should never be accepted.
- Gifts should never influence patient treatment or even give the impression that they could influence quality of treatment.
- Gifts should not make a significant impact on either the patient's or physician's financial status and should not exceed what would be considered to be modest by community standards.
- The patient's motivation and underlying psychological needs must always be carefully evaluated when deciding to accept a gift. This is especially true when dealing with psychiatric patients, even when accepting small gifts (eq, holiday cookies).
- It is important to maintain consistency among all patients. For example, if the office has a no-gift policy, then no gifts should be accepted from any patient, regardless of the value.
- If the physician would feel embarrassed or uncomfortable if colleagues or patients knew about the gift, then it should not be accepted.

Rejection of a valuable gift should be done with care, as a tactless approach to refusal can have a negative impact on the physician-patient relationship. For example, in some cultures it is customary to express gratitude by giving a gift, and denying patients the right to express their gratitude could be deemed insulting and harm the physician-patient relationship. Other patients may see the rejection of a gift as a personal rejection and feel shunned by the physician. Therefore, the physician should always express an appropriate amount of gratitude toward the gesture and explain why the gift cannot be accepted.

(Choices 1 & 3) Accepting a gift of significant value would not be appropriate for the above-mentioned reasons.

(Choice 4) It is ethically irresponsible to accept the gift even with the intention of passing it along to the office staff. It may precipitate patient favoritism among the staff or make other patients feel obligated to provide gifts to the health care team.

Question **79** of **101**

1 points

A 45-year-old Hispanic female presents to your office for the first time as a new patient after recently moving into your community. Her medical history includes obesity and type II diabetes mellitus. Her current glycosylated hemoglobin level is 10%. She has been using insulin in addition to oral hypoglycemic medications for the past few years. When you ask her how she is doing with her insulin she replies, "I use it once in a while, but I feel fine so I don't think I need it." Which of the following is the best reply?

1. "Your blood sugars are not well controlled. You should use insulin regularly."
2. "It seems that your blood sugars are not well controlled. Do you have difficulty injecting insulin?"
3. "It seems that you have little understanding about diabetes and its complications. Let me explain more about it."
4. "It seems that your blood sugars are not well controlled. Please tell me what you understand about diabetes." ✔
5. "Since you are not using insulin regularly, I will add more oral medications and cut down on your insulin."

INCORRECT ✖

The correct answer is 4.

This vignette presents a diabetic patient who has very poor control of her average blood glucose as evidenced by her very high glycosylated hemoglobin level (HbA1 c). She also demonstrates a poor understanding of her disease and the potential ramifications of poor glycemic control. It is the responsibility of the physician to help patients make informed decisions about their diseases and the treatments for these ailments. Patients are less likely to adhere to a treatment regimen that they do not understand, and convincing patients to treat initially silent illnesses such as diabetes or hypertension requires education from the physician as well. In this situation, the best course of action is to be honest with the patient; she is doing poorly with her present treatment, and to educate the patient about why treating her diabetes carefully is very important for her long-term health. It is a commonly held misconception among nonmedical people that insulin causes blindness. This is likely associated with the fact that patients with longstanding poorly controlled blood sugars develop diabetic retinopathy. By the time these patients come to see a physician their disease is out of control, and despite treatment these patients will still suffer sequelae of their prior poor sugar control such a neuropathy, retinopathy, nephropathy, and others.

(Choice 1) This is an accurate statement but not the best answer. It is likely that the physician who originally prescribed the insulin also told the patient to use it regularly, but she is not. To adhere to a treatment plan, it is essential for a patient to understand why they are using a particular medication.

(Choice 2) It is appropriate to check the patient's skill in administering their medication and make sure they are not having difficulty, but in the vignette the patient clearly states that she uses her insulin "only when she feels like it." This demonstrates poor understanding of her disease process and treatment.

(Choice 3) Providing more information to the patient and answering their questions are key points in an interaction such as this where the patient demonstrates misunderstanding of their treatment. Flatly stating that a patient does not understand can sound condescending and may make the patient angry with you. An angry or offended patient will be less likely to listen or follow-up with a physician who makes them feel that way.

(Choice 5) Adding more medications only exposes the patient to more possible side effects and complications. It is most appropriate to check the patient's understanding of her disease first to make sure her present treatment is being administered correctly.

1 points

A 44-year-old male is brought to the emergency department after vomiting at a party. It is determined that he has been drinking heavily and has acute pancreatitis. He remains intoxicated with a blood alcohol level of 245 mg/dl (0.245% BAC). He tells you that he hates hospitals and that he will sue you for touching him. He says that he does not want any more of your "worthless treatment." What is the best response to this patient?

1. 'You are free to leave at anytime."
2. "We cannot release you until you are sober" ✔
3. "Have you been arrested for alcohol-related offenses in the past?"
4. "Do you normally require an 'eye opener' when you wake in the morning?"
5. "Do you have an alcohol problem?"

INCORRECT ✖

The correct answer is 2.

This patient is drunk and therefore incapacitated, as shown by his behavior and blood alcohol level. Blood alcohol levels above 100 mg/dl (0.10% BAC) tend to result in intoxication, slurred speech, and impaired decision-making capacity, while blood alcohol levels above 200 mg/dl (0.20%) are associated with marked motor impairment, loss of consciousness, and memory blackouts. By definition, incapacitated patients are not fit to make health care decisions. During periods of temporary incapacitation, health care decisions should instead be made by surrogate decision makers, such as close family members or the patient's personal physician. When an incapacitated patient presents alone in an emergent setting, however, consent to treatment is presumed.

(Choice 1) This patient is not free to leave because he has a potentially serious medical condition and, while intoxicated, lacks the capacity to make health care decisions.

(Choices 3, 4 & 5) Questions of this type are best asked in an outpatient setting when the patient is sober. Legal problems associated with alcohol use and the use of alcohol as an 'eye opener" suggest that the patient has an alcohol problem.

1 points

While at dinner with his family, a physician notices one of his colleagues sitting at a neighboring table. After exchanging pleasantries, he says, "Somebody just told me that you are taking care of my dentist, Dr. Smith. Her receptionist called and cancelled my appointment last week, but did not give a reason. It must be health related if she is seeing you. Hopefully, you can help her." Which of the following is the most appropriate response by the physician's colleague?

1. "Due to confidentiality, I cannot verify whether she is or is not my patient." ✔
2. "No, she is not my patient. However, I did hear that she has taken some time off from work."
3. "She is my patient, but I am unable to discuss her treatment due to patient confidentiality.'"
4. "Yes, I've been seeing her, but let's keep that information confidential."
5. "Yes, she seems to be getting better each week and may return to work soon."

INCORRECT ✖

The correct answer is 1.

It is the ethical responsibility of physicians to respect patient confidentiality in all situations, including non-medical settings and in interactions with physician colleagues who are not serving a role as a health care provider for the patient. The most appropriate response in this situation is to not divulge any information regarding the patient's condition or treatment. The physician should not lie to protect the patient's confidentiality nor should he confirm or deny whether she is a patient.

1 points

A 65-year-old man is admitted to the inpatient unit of a busy community hospital for worsening shortness of breath over the last few days. He has •a 60-pack-year smoking history and was initially diagnosed with chronic obstructive pulmonary disease exacerbation and treated accordingly. Chest x-ray on admission shows a large hilar opacity, and CT scan confirms the presence of a 4-cm mass in the right hilum. In the process of obtaining informed consent for bronchoscopy with biopsy, the patient says, "Doc, please don't tell me what they find, because if it's cancer, I don't want to know." Which of the following is the most appropriate response to this patient's request?

1. "I won't tell you, but you must appoint someone in your family to make decisions on your behalf."
2. "It is my ethical and legal obligation to share your health information with you."
3. "Tell me more about your concerns so I can better understand why you feel this way" ✔
4. "There is no need to worry. The chances are this isn't cancer."
5. "You will have to be evaluated by a psychiatrist before I can comply with your request."

INCORRECT ✖

The correct answer is 3.

Just as competent patients have the right to refuse medical care and interventions, they also have the right to refuse to receive diagnostic information. Requests to withhold information may stem from personal fears or cultural, religious, or social factors. They should be respected based on the principle of autonomy. This patient is concerned about being diagnosed with lung cancer and likely has unspoken fears about what the diagnosis means. An appropriate initial response is to attempt to learn why the patient feels this way. Efforts should be made to gently explore the patient's concerns, elicit questions he may have about potential diagnoses (lung cancer and other possibilities), and explain how knowing the diagnosis may help him make subsequent treatment decisions. The physician should make an effort to understand the patient's desires and concerns in order to develop a trusting relationship that may facilitate future collaborative treatment planning.

(Choice 1) Although it may be beneficial to involve family members and eventually designate a surrogate decision maker, the initial role of the physician in this case is to try to understand the patient's concerns.

(Choice 2) Although a physician is ethically obligated to share all of a patient's health information with the patient, in this case a competent patient is specifically requesting that he not be told his diagnosis. The physician should therefore respect his decision.

(Choice 4) Offering false reassurance that the diagnosis is unlikely to be cancer is inappropriate.

(Choice 5) Undiagnosed psychiatric illness may play a role in a patient's request to not receive diagnostic information, but there is no evidence to suggest that it is occurring in this patient. If further discussion with the patient indicates significant depression, anxiety, or other psychiatric issues, a psychiatric consultation would be indicated.

1 points

You are asked to see a 48-year-old deaf man in the emergency department who complains of depression and anxiety. You arrive to find him having a conversation with a friend through sign language. The nurse states he has been calm, can read lips, and has been communicating with the staff through acting and body language. What is the best way to proceed with the medical evaluation of this patient?

1. Conduct the interview normally, allowing him to read your lips and answer in his own way
2. Ask the patient's friend to help you translate
3. Communicate with the patient through writing
4. Call for an interpreter and wait until they arrive before evaluating the patient ✔
5. Ask the patient to fill out checklist evaluation forms on depression and anxiety

INCORRECT ✖

The correct answer is 4.

When evaluating patients with language barriers in non-emergent settings, you must always use trained interpreters to avoid potentially dangerous miscommunications. All hospitals have access to language interpreters. In an emergent setting, there may not be time to wait for interpretation services to become available. In these cases, communication is facilitated utilizing whatever tools are available at the time, including the patient's friends/family, writing/drawing instruments, and bilingual hospital staff. Although this patient is presenting to the emergency department, he is medically stable and calm. In the interests of optimizing this patient's medical care, it would be prudent to wait for an interpreter in order to obtain an accurate and thorough medical history.

(Choice 1) Even though deaf patients can sometimes read lips quite well, there is too much room for miscommunication. They will also not be able to express themselves to you effectively.

(Choice 2) Friends and families should not be used to interpret, as they can sometimes distort information by adding their own subjective bias. An objective interpreter is needed.

(Choice 3) Although writing may seem like an acceptable method of communication, many of the nuances are typically lost and some information can be misinterpreted. Information may also be left out for the sake of brevity. Thus, writing is not considered an acceptable alternative to having a sign language interpreter.

(Choice 5) Serial questionnaires are sometimes used to monitor treatment progress, but they should not be relied upon for a complete evaluation and do not substitute for having a conversation with the patient.

1 points

A 41-year-old primigravid woman comes to the physician for a routine prenatal examination. Examination of maternal serum alpha-fetoprotein shows a level of 0.3 MoM (normal 0.5 to 2.5). The physician explains that the test is a strong indicator that the fetus has Down syndrome. The patient becomes upset, begins to cry, and says, "God must be punishing me!" Which of the following is the most appropriate response for the physician?

1. "I don't think God has anything to do with this. This sort of thing just happens sometimes."
2. "I know it's hard to hear this kind of news, but let me assure you that you are still young enough to have other children."
3. "Let's take a moment to reflect and pray together for guidance."
4. "Sometimes God works in mysterious ways that we cannot understand. We just have to try to keep our faith."
5. "Take some deep breaths and try to relax. When you collect yourself, we can talk about how you want to proceed."
6. "Tell me a bit more about why you think God is punishing you." ✔

INCORRECT ✖

The correct answer is 6.

The core issue here is that the physician needs more information. In particular, he needs to find out about the patient's beliefs about how the world works and why things happen. Simply imposing his own beliefs does not allow an understanding of how the patient perceives the world. Understanding how the patient sees the world is essential for conveying to her the reasons Down syndrome occurs, and in helping her make a thoughtful decision as to what to do next.

(Choice 1) states the physician's views, which may be contradictory to those of the patient. The problem to be solved here is not how to convince the patient to see things as the physician does, but for the physician to understand how the patient sees the world.

(Choice 2) seeks to empathize with and reassure the patient. In doing so, however, it makes an unwarranted assumption that the woman's distress arises from a fear of not being able to have more children. The physician does not know if this is the woman's chief concern. Ask how the patient sees the world first before trying to make the patient feel better about that world.

(Choice 3) Whereas facilitating the free expression of a patient's religious beliefs is a how the patient sees the world first before trying to make the patient feel better about that world.

(Choice 3) Whereas facilitating the free expression of a patient's religious beliefs is always a good idea, the physician does not yet know what this patient's beliefs are. The physician is inappropriately directing a course of action. Rather than first eliciting from the patient, what she would consider appropriate.

(Choice 4) uses Catholic theology to try to provide comfort to the patient. If the patient snares this belief system, it may well be effective. If the patient has different beliefs, it will be well shy of the mark and may cause confusion rather than comfort. Ask before assuming.

(Choice 5) uses behavior techniques to try to calm the patient. While it is a positive end in its own right, this approach does not help the physician understand how to interact with the patient when she is calm. In addition, this type of suggestion without context may convey the impression that the physician simply wants the patient to be calm, but not that he wants to understand the reasons for her distress.

1 points

A 25-year-old woman is brought to the emergency department by her husband because of severe abdominal pain and tendethess. A diagnosis of acute appendicitis is made and an appendectomy is performed. During the surgical procedure, the appendix shows no abnormalities but a large tumor is found adherent to the left ovary. Which of the following is the most appropriate next step in patient care?

1. End the surgery ✔
2. Excise as much of the tumor as possible without coming into contact with the ovary
3. Exercising common standards of care, remove the patient's ovary to eliminate the tumor
4. Seek permission from the patient's husband to excise the tumor; he is sitting in the waiting room
5. Seek the advice of the supervising surgeon
6. Talk with the patient's husband, who is in the waiting room, about how his wife would probably want to proceed

INCORRECT ✖

The correct answer is 1.

Competent patients have the right to make all treatment decisions for themselves, including refusal of treatment. If the physician can access the patient's wishes by direct conversation, then this must be done. After the present patient recovers from the anesthesia, she is entitled to full informed consent, including descriptions of: the nature of the procedure, the benefits of the procedure, the purpose of or rationale for the procedure. The risks of the procedure, and the availability of alternatives. Once given this information, the patient herself can make whatever treatment decision seems best to her.

(Choice 2) Excising the tumor is treatment without the patient's consent and permission.

(Choice 3) The patient's wishes, not "common standards of care", are what guide treatment decisions. Only if the patient's wishes cannot be accessed in any way and the situation is critical would the physician act using judgment as to what would be reasonable care.

(Choices 4 & 6) are incorrect because the patient has the right to make decisions regarding her own treatment. If the present patient were in a coma of some duration, then the physician might ask the husband under the doctrine of substituted judgment. That is not the present case, and after the effects of anesthesia have waned, the physician can speak directly with the patient.

(Choice 5). The physician has all of the necessary information to know the correct actions to take without consulting a superior In general; consulting a superior will be the wrong answer.

1 points

A 55-year-old man with a history of alcoholism, cholecystitis, and pancreatitis undergoes a cholecystectomy. Over the next two days, his sedation is discontinued and he is extubated. Three days later, he develops a tremor, nausea, and vomiting. He desperately asks the nurse to "Kill those giant snakes and disgusting rats". His temperature is 38.3°C (100-4°F), pulse is 110/min, respirations are 20/min, and blood pressure is 140/95 mm Hg. Physical examination shows a soft, nontender abdomen and the wound is intact Treatment with which of the following will most likely provide immediate resolution of this patient's 9 symptoms?

1. Chlordiazepoxide ✔
2. Disulfiram
3. NaCl 0.9%
4. Naltrexone
5. Thiamine

INCORRECT ✖

The correct answer is 1.

Patients with a history of alcoholism should always be watched for symptoms of alcohol withdrawal because the sequelae can be life-threatening. In this case, the patient exhibits many of the classic findings of alcohol withdrawal: tremor, tachycardia, hypertension, malaise, nausea, hallucinations, and delirium tremens. Delirium tremens is a constellation of signs and symptoms, including autonomic instability, fever, tachycardia, hypertension, delirium, and death. Treatment for withdrawal can include replacing the alcohol or giving benzodiazepines (chlordiazepoxide or lorazepam).

(Choice 2) Disulfiram is used to discourage alcohol abuse by strengthening the negative effects of alcohol intoxication via inhibition of aldehyde dehydrogenase. Disulfiram may be needed in the long run, but since this patient is exhibiting signs of alcohol withdrawal it would not result in a timely resolution of symptoms.

(Choice 3) IV hydration (NaCl 0.9%, normal saline;) is almost always appropriate in patients undergoing alcohol withdrawal. However, it will not necessarily bring about a quick resolution of symptoms. IT is an adjunctive treatment, along with a benzodiazepine therapy.

(Choice 4) Naltrexone is a drug used primarily for opioid overdose. Since this patient has been previously sedated, that possibility exists. However, the presentation appears more likely to be withdrawal symptoms from a sedative or alcohol rather than overdose symptoms. Therefore, naltrexone administration will not be necessary.

(Choice 5) Thiamine is used to treat patients with Wernicke Korsakoff syndrome. A constellation of symptoms that includes psychosis, ophthalmoplegia, and ataxia secondary to thiamine deficiency that may occur in chronic alcohol users. Patients undergoing alcohol withdrawal often require thiamine, but it is only an adjunct therapy. Benzodiazepines will most likely be the first to bring about a resolution of this man's symptoms.

1 points

A 34-year-old woman is brought to the emergency department by her husband because of a persistent cough, nausea, and difficulty breathing for the past 4 days. A male physician enters the examination room. The patient appears shy and distant. The husband introduces himself and reports that he has brought her for treatment. Looking directly at the physician, he says, "What can be done to help my wife?" The patient appears detached and avoids all eye contact with the physician. Which of the following is the most appropriate next step in patient care?

1. Ask the husband to lift the patient's clothing so the physician can listen to her lungs
2. Ask the husband to wait outside while the physician examines the patient in private ✔
3. Ask the patient directly to describe her symptoms
4. Ask the patient to disrobe so she can be examined
5. Ask the patient if she wishes to have her husband present during the examination

INCORRECT ✖

The correct answer is 2.

Although the husband has done all of the talking, the wife is the patient. The physician needs to make contact with her and create a forum in which she can communicate without any interference from her husband. The best way to do this is to ask to speak to the patient privately. Note that either the woman or her husband may object to this request. If the husband objects, offer to have a female staff member present while he is out of the room. If the wife objects (and she has the right to do so), then ask what would make her most comfortable.

(Choice 1) Asking the husband to lift the woman's clothing involves him in the examination but does nothing to allow the woman to express her own perspective. If she will not speak with the physician at present, then perhaps she will be more willing to do so with the husband out of the room.

(Choice 3) is incorrect. With the husband present, the wife's tendency will be to echo his account, or simply to say that his representation was correct. If she has other information to provide, she may be reluctant to do so. Create a situation where free exchange can happen by moving the husband out of the way.

(Choice 4) is incorrect. As with **(Choice 1)**, with the husband present, the wife may be unwilling to speak freely. Establishing contact with patient and taking a detailed history comes prior to physical examination and this has to be done with the patient herself without interference from the husband.

(Choice 5) places the woman in the position of, in effect, being the one who has to ask her husband to leave. The physician should take on that role so the woman does not have to do so. As noted before. if she wants to have him stay when the physician asks him to leave, she can say so.

1 points

A 10-day-old newborn is brought to the physician by his mother for a routine well-child examination. The patient's mother states that he jumps and jerks his arms to his chest as if he were afraid every time she drops something or when the dog barks. The physician explains that the behavior is normal and will most likely be naturally extinguished at which of the following ages?

1. 1 month
2. 5 months ✔
3. 8 months
4. 12 months

INCORRECT ✖

The correct answer is 2.

The Moro reflex can be elicited in the infant by any startling event; it consists of extension and abduction of the arms, followed by flexion and adduction of the arms. This is a normal reflex that appears between the ages of 25 and 36 weeks of gestation, and will normally disappear between 3-6 months.

(Choice 1) The palmar grasp reflex, characterized by the infant's hand closing over an object placed in the palm of the hand, normally disappears after 1-2 months of age.

(Choice 3) The tonic neck reflex consists of extension of the ipsilateral leg and flexion of the contralateral arm and leg when the head is turned. This reflex normally disappears between 7 and 8 months of life.

(Choice 4) The Babinski reflex is elicited when the lateral surface of the sole of the foot is stroked, resulting in the great toe going up and the other toes fanning. It normally disappears at 1 year of age.

1 points

A 64-year-old man comes to the emergency department because of abdominal pain and blood in his stool. A CT scan of the abdomen shows a cecal mass. The patient consents to surgery, and the mass and several surrounding lymph nodes are excised. Histopathologic examination of tissue from the surgical specimen shows adenocarcinoma with extension through the serosa and positive lymph nodes. Life expectancy is estimated to be less than 1 year. The physician enters the patient's room to inform him of the diagnosis and the poor prognosis and finds the patient sitting with his wife and teenage daughter. After introducing herself, which of the following is the most appropriate response from the physician?

1. "I have some bad news. Would you like to discuss it in private or would you like to have your family present?"
2. "I have some things to discuss with you in private. I'm going to ask your family to wait outside." ✔
3. I'm glad that your family is here. Can any of you recall whether any of your close relatives have ever had cancer?"
4. "I'm glad that your family is here with you. I have some things to discuss with you."
5. This is the part of my job that I hate the most. I came here today to tell you that the cancer has very likely spread."

INCORRECT ✖

The correct answer is 2.

The patient has the right to privacy, even from his family if he wishes it. The physician should help facilitate this if it is the patient's desire. By asking the family to leave, the physician protects the patient from having to confront his family. Even if the patient wishes privacy, he may be reluctant to direct his own family to leave the room. Note that if the patient does want the family present, he can override the physician's request and ask them to stay.

(Choice 1) puts the patient in the position of asking the family to leave. The physician should take on this role.

(Choice 3) This attempt to gradually introduce the topic is more likely to arouse distress, as the patient and family wonder why the topic of cancer has been brought up for discussion. The physician's communication should be direct, but only after arranging for privacy for the patient.

(Choice 4) Confidentiality is absolute. Even family members do not have the right to Know about the patient's condition without his consent. Including the family in the discussion without a sense of the patient's wishes breaches confidentiality.

(Choice 5) is a direct, clear communication but neglects to arrange the setting first. Before delivering the news, the physician must allow the patient the option of privacy, even from family members.

1 points

A 68-year-old man is diagnosed with severe pulmonary hypertension and a surgical lung transplant is performed. Prior to the surgery, the physician explains the risks and benefits of this procedure, including alternative treatments, and the usual protocol for postoperative care. The patient then signs an "informed consent." The surgical procedure is completed. The patient is brought into the recovery room and develops respiratory failure. Mechanical ventilation is continued as standard postoperative procedure. The physician is uncertain how long this patient will require mechanical ventilation. At this point, the patient's son presents a living will signed by the patient staling that he wishes not to be kept alive by mechanical means. The patient's son then asks to have mechanical ventilation terminated. The patient's wife says, "Do not remove the ventilator. I cannot bear the thought of losing my husband." Which of the following is the most appropriate next step in patient care?

1. A court ruling to adjudicate the validity of the living will
2. A ruling by the hospital Ethics Committee
3. Consultation among family members to achieve a family consensus as to how to proceed
4. Consultation with the patient's primary care physician
5. Maintain the patient on life support, based on the patient's consent, until such time as it is determined that the chance of recovery is unlikely ✔

INCORRECT ✖

The correct answer is 5.

The subtle but important point in this question is that the life-support procedures are part of the standard postoperative recovery procedures to which the patient consented when he agreed to the transplant. In other words, this is not a case of the patient's life being prolonged by life support. Rather, the life support is key to the treatment. Note that life support will not be maintained indefinitely. Should the prognosis change so that recovery is unlikely, then the living will comes into play, and life support would be terminated.

(Choice 1) The patient has already consented to the treatment. Court examination of the living will would add nothing. Given the consent and the chance of recovery, this is not a situation in which the living will is germane.

(Choice 2) The ethics board can add nothing here. There is ample information in the case for the physician to make an on-the-spot decision. In general, going to court or to the Ethics Committee will not be correct answers on the Step 1 exam.

(Choice 3) The patient, not a committee of family members, has the right to decide what should be done. The patient's consent to the surgery is the governing principle for now. If recovery should seem unlikely, then the living will comes into play. In neither circumstance is a joint decision of family members relevant.

(Choice 4) If the patient's consent was not already obtained and there was no clear statement of the patient's wishes, as in the living will, then consulting with the patient's primary care physician might make sense. The primary care physician may have (and should nave) discussed end-of-life care issues with this patient, and may provide a window into the unconscious patient's true wishes. In this case, because other information is available, the consultation with the primary care physician will yield nothing new.

1 points

A 17 -year-old boy with a history of severe cystic fibrosis is admitted to the hospital because of respiratory failure and treatment with mechanical ventilation is begun. A group of 3 physicians agree that this patient will be ventilator-dependent. The patient is alert and awakens with vocal and tactile stimuli. He is also able to write a few words on a piece of paper to communicate and writes that he is in pain. His parents ask if he will ever be able to breathe on his own again. The physician explains that recovery is highly unlikely and prescribes a drug to control the patient's pain. Five days later, the patient writes on a paper that the pain is improved but insists that all mechanical life support be terminated. When the physician explains the patient's request to his parents, they are upset and unsure of how to proceed. Which of the following is the most appropriate outcome?

1. The boy will be maintained indefinitely on ventilation
2. The boy will be maintained on ventilation until he reaches majority age ✔
3. The boy will be maintained on ventilation until the case can be heard by the court with appropriate jurisdiction
4. The boy will be maintained until such time as his parents render a clear decision
5. Ventilation will be terminated as the boy requests

INCORRECT ✖

The correct answer is 2.

This patient is 17 years old and therefore a minor. This means that he does not, in the eyes of the law, have the capacity to make medical decisions for himself. His parents must make the decision for him. Al the same time, the parents are not allowed to withhold life- or limb-saving treatment from their child. Adults can make this decision for themselves, but a parent cannot decide this for a child. Therefore, life support will be maintained until such time as the boy turns 18, becomes an adult, and can make his own decisions.

(Choice 1) is incorrect. When the boy reaches majority age (18 years), he has the right to decide to terminate treatment.

(Choice 3) The court will not recognize the boy as having any decision-making capacity, and is unlikely to allow termination of treatment under these circumstances.

(Choice 4) is incorrect. The parents are not allowed to withhold life-sustaining treatment.

(Choice 5) is incorrect. The boy is not allowed to make this decision as long as he is under age 18.

1 points

A 67 -year-old man comes to the physician because of discomfort in his lower abdomen and difficulty with urination. He is 180 cm (5 ft 11 in) tall and weighs 100 Kg (220 lb); BMI is 30.7 Kg/m ^{2}. Physical examination shows an enlarged prostate. The physician explains that a prostate-specific antigen (PSA) test to detect the possibility of prostate cancer should be performed. The patient is anxious, visibly upset, and inconsolable about the possibility of having cancer. The patient's PSA level is 3.5 mg/dl, which is within the normal range. Which of the following is the most appropriate next step in patient care?

1. Arrange an appointment to talk with the patient in the next several days and review the results in person
2. Call the patient at once to deliver the news and offer guidance
3. Call the patient to deliver the news and congratulate him on his overall health
4. Call the patient to deliver the news and schedule him for a follow-up appointment to review what he can do to improve his overall health ✔
5. Have the practice's nurse call the patient to deliver the news and take time to answer any questions he may have

INCORRECT ✖

The correct answer is 4.

All communication with a patient is best handled face-to-face. When this is not possible because of the need to deliver news in a timely manner, as in the present case, the phone conversation should be followed up by a visit. The follow-up visit is also needed to discuss some of the patient's other health issues, including his weight. This patient's body mass index (weight/height $^{2)}$ is too high.

(Choice 1) The patient is likely to have high anxiety over the next several days as he waits to hear the results. Alleviate the anxiety by telling him as soon as possible.

(Choice 2) The phone call gets the good news to the patient quickly, but does nothing to either further the building of a good long-term relationship with the physician or address the patient's other health concerns.

(Choice 3) while getting the patient the news quickly and in a cheery manner, does not address the patient's other health conditions.

(Choice 5) The physician, not a nurse or other member of the office staff, should be the one to deliver the news. The practice of having the physician call with bad news and a staff member call with good news only heightens patients' anxiety any time the physician calls. The physician is in the best position to answer any questions the patient might have, and to talk about the next steps to improve the patient's health.

1 points

A 29-year-old man comes to the physician because of a sinus infection. The patient states that he has "had a hard time" since the death of his partner from AIDS-related complications three months ago. He has had difficulty sleeping, anxiety, and a weight loss of 4.5 Kg (10 lb). He appears gaunt and tired. When asked if he has ever been tested for HIV, he becomes angry and says, "No, and I'm never going to get tested. Don't tell me you're one of those doctors who thinks that all gay men have AIDS!" Which of the following is the most appropriate response for the physician?

1. "Don't be so sensitive. It just seemed like the obvious question to ask, given your circumstances."
2. "I have quite a few gay patients and I get along well with all of them. I'm sorry that I upset you."
3. "If you want me to help you, I have to ask these types of questions."
4. "I'm going to prescribe an antibiotic for your sinus infection and something else to help you feel a little better."
5. "I'm sorry if I upset you. I want to make sure I give you the best care possible, and with currently available medications, early detection of AIDS is essential." ✔

INCORRECT ✖

The correct answer is 5.

The issue of testing is a legitimate and even necessary one. The patient's anger should be defused and the reasons for the question explained, but the matter should not be dropped just because of the patient's emotional response. First, the physician apologizes, taking responsibility and acknowledging that he is the cause of the patient being upset. After addressing the emotional issue, the physician proceeds to explain the reason for the question. This answer Keeps the lines of discussion open and focuses on addressing the emotional issue, the physician proceeds to explain the health matter at hand. This answer is best because it deals with the patient's anger and Keeps the discussion on the health issue of concern.

(Choice 1) This response is defensive. The physician feels attacked, and defends himself by justifying his actions. Unfortunately, this response is likely to heighten, not reduce, the patient's anger. Further, the discussion now centers on the patient's response, and the focus on the need for testing and treatment is lost. Note that in this response, no reason for raising the testing issue is given. It is merely asserted.

(Choice 2) is also defensive and opens up a discussion about how the physician feels about and deals with homosexual men, rather than the core health issue, which needs to be addressed. The issue is the patient's HIV status, not how the physician feels about gay men.

(Choice 3) is not a bad answer, just not the best one. The tone is sufficiently non-confrontational. However, the physician takes no responsibility for the patient's response and provides no rationale for raising the topic of testing.

(Choice 4) may be a reasonable treatment for the sinus infection; however. it is not responsive to either the patient's expressed anger or the health need of testing. Note that the veiled offer of antidepressant medication is also incorrect. Very likely the patient is grieving. The correct response to grief is listening, support, and allowing the patient to go through the grieving process.

1 points

A first-year female resident is instructed to obtain a medical history from a patient who is newly admitted for induced delivery. As the resident enters the patient's room, she is startled to discover that the patient is one of her previous medical school professors. The patient indicates that she is uncomfortable giving personal information to a student whom she knew from another context. The resident excuses herself, leaves the patient's room, and reports the patient's concern to the attending physician. The attending physician tells the student, "Oh, get over it! Be a professional. Go back in and get the information like I told you." Which of the following is the most appropriate next step?

1. Ask one of the resident physicians on the ward to gather the medical history without telling the attending physician
2. Ask the attending physician to accompany her and ask the patient's cooperation
3. Contact the Residency Program Director to provide advice and guidance
4. Politely but firmly, refuse to collect the medical history for this patient and offer to take on another assignment ✔
5. Return to the patient's room and gather the patient's history as instructed

INCORRECT ✖

The correct answer is 4.

The patient's wishes and comfort come first, and they override the directive from the attending physician. The resident, as a doctor in training, should be an advocate for the patient and should respect the patient's wishes regarding to whom she feels comfortable giving personal information. Remember, the patient is number one, and the patient's wishes should be of primary concern.

(Choice 1) Going behind the back of the attending physician is deceitful and unprofessional. The resident should have the courage of her convictions and maintain what she feels is right, even to someone above her in the medical hierarchy.

(Choice 2) The aim here is not to convince the patient but to show respect for the patient's wishes. Trying to shame, coerce, or bully the patient into acquiescence is clearly inappropriate.

(Choice 3) The resident must exercise her own professional judgment and make these decisions on her own. Bringing in the Residency Program Director takes time and escalates the situation. The attending physician may well be embarrassed and resentful of the intrusion. If the resident feels the attending instructions are wrong, she must say so directly and stand her ground .

(Choice 5) directly contradicts the patient's stated wishes, and so is wrong.

1 points

A 24-year-old man is injured and sustains thoracic and closed-head trauma during a motor vehicle collision. A pedestrian, who is a resident physician coming home from a night on call, seeing that a small fire has begun under the automobile, pulls the driver out of the vehicle, and attempts to maintain a patent airway. The driver dies at the scene of the collision despite appropriate lifesaving measures. At autopsy, it is determined that moving the patient from the car exacerbated a spinal injury and contributed to the patient's death. The patient's family sues the physician and the hospital at which she works, claiming negligence. They state that sleep deprivation contributed to the physician's poor decision-making. Which of the following is the most likely outcome?

1. Criminal and civil penalties for the physician but not for the hospital ✔
2. Civil, but not criminal, penalties for the hospital and no penalties for the physician
3. Civil, but not criminal, penalties for the physician and no penalties for the hospital
4. Criminal and civil penalties for both the physician and the hospital
5. Criminal and civil penalties for the hospital but not for the physician

INCORRECT ✖

The correct answer is 1.

The Good Samaritan law says that physicians do not have to stop to help in a non-medical situation such as an automobile accident. However, to encourage them to stop, physicians are shielded from legal liability as long as they:

- Act within their area of competency
- Perform standard procedures
- Stay at the scene until relieved by competent medical personnel
- Receive no compensation. The physician can still be sued, but is protected from any adverse judgment.

In the present case, all four of these conditions are met. Moving the patient when there is a threat of fire is perfectly reasonable. The physician is shielded from liability. The hospital is also shielded from liability. The resident is technically an employee, but was traveling home after a night on call and is therefore "off duty."

Finally, neither the physician nor the hospital is subject to any criminal charges. There was no malicious conduct, perverse neglect, or anything else that would rise to the level of criminal action.

1 points

A 75-year-old man is brought to the physician because of pain on the len side of his chest during inspiration. Physical examination shows bilateral bruises on the upper arms, as well as ecchymoses along the right mandible and lips. A chest x-ray shows three broken ribs on the len. A CT scan of the head shows a subdural hematoma over the right hemisphere. Which of the following is the most likely diagnosis?

1. Alcohol dependence
2. Cerebral infarction
3. Elder abuse ✔
4. Falling in the bathtub
5. Parkinson disease

INCORRECT ✖

The correct answer is 3.

The bilateral bruises on the upper arms suggest that this man has been tightly grabbed. The left-sided rib fractures support the possibility that he was struck forcefully by a right-handed person (most people are right-handed). Subdural hematomas are most often caused by head injury, which may occur either from a fall or from elder abuse. However, while a fall may explain the bruises on his mandible and lips, it does not explain the localized bruises on his upper arms. Elder abuse is the most likely explanation and should always be part of the differential when an elderly person presents with injuries. Note that neglect is the most common type of elder abuse, and the most likely abuser is a caretaker.

(Choice 1) can result in bruises on the lateral surface of the body as the person stumbles into door frames, or on the shins at "coffee-table" height while intoxicated.

(Choice 2) generally has a younger onset and is characterized by lateralizing neurologic signs, which are not present here. The case also does not present any evidence for disruptions of cognitive status. Even if infarcts cause loss of consciousness and falling, the physical injury pattern cannot be explained as a result of falls.

(Choice 4) is likely to produce bruises localized to one side of the body. Note that this is often a "cover story" told by patients who have been abused.

(Choice 5) is characterized by bradykinesia, resting tremor, cogwheel rigidity, and shuffling gait. However, the injury pattern suggests physical assault, not a neurologic problem.

1 points

A 5-year-old girl is brought to the physician for a routine well-child examination. The mother states that she recently walked into the girl's bedroom without knocking and discovered the child touching her genitals. The parents are concerned and want to Know what the physician thinks. Which of the following is the most appropriate response by the physician?

1. "Do you think that someone's been molesting her?"
2. "Don't you think you should knock before going into her room?"
3. "She probably has a vaginal infection. I can examine her to see if that is the case."
4. "This is perfectly normal behavior for a child this age."
5. "What concerns you most about this behavior?" ✔

INCORRECT ✖

The correct answer is 5.

Before the physician can provide guidance for the parents, the parents' concerns need to be understood. While the described behavior is perfectly normal for a 5-year-old **(Choice 4)**, and it is appropriate for parents to knock on the door of their child's room before entering **(Choice 2)** to teach children respect for privacy through modeling, the parents' concerns must first be understood.

(Choice 3) To immediately assume there is something physically wrong with the child or that the child has been sexually abused **(Choice 1)** suggests that the physician may have some personal issues with normal sexuality in children.

1 points

A 5-year-old boy is brought to the physician because of severe asthma. The patient's mother states that he has tried several standard treatments that have not improved his symptoms. Treatment with a newer, more expensive drug is begun and the patient has no exacerbations. Six months later, the patient returns for a follow-up examination. The patient's mother states that she received a letter from her insurance company that says they will only cover the full cost of a different, cheaper medication that is the "standard of care." The mother says that she cannot afford the cost of the newer medication. The physician contacts the insurance company and argues that the new medication should be fully covered, but he is told that the review process will take several months. Which of the following is the most appropriate next step?

1. Admit the child to an inpatient setting and try to find an acceptable, covered, alternative medication
2. File a complaint with the American Medical Association to pressure the insurance company to change their policy
3. Make arrangements to provide the new medication for the child free of charge while the review process is taking place ✔
4. Refer the parents to legal counsel to sue the company to force coverage
5. Seek the advice of hospital legal counsel

INCORRECT ✖

The correct answer is 3.

If the physician truly believes that the current medication is the best for the child, then he must do all he can to see that the patient has access to this treatment. If cost is the barrier and the physician can find some way to waive the cost, then this is the obvious course of action. Remember that traditionally, doctors and hospitals provide a certain amount of care without charging a fee. The guiding goal must be care, not cost.

(Choice 1) Admitting the child is a costly alternative when the child is already taking an effective medication. Simply stated: If the child is maintained on the current medication, hospitalization is not warranted.

(Choices 2 & 4) While it might be personally satisfying to pressure the insurance company and might help children in the broader society eventually, It does nothing to help the present patient.

(Choice 5) This question is decided not on the basis of legal opinion but on the basis of clinical judgment. If the current medication is working and the alternative that is covered by the insurance company is unproven, then every effort must be made to maintain the proven treatment.

1 points

A 36-year-old woman comes to the physician because of urinary urgency and pain on urination. Physical examination shows no abnormalities. Urinalysis shows 5 RBC/hpf, 10-15 WBC/hpf, and many bacteria. Treatment with amoxicillin is begun. Two days later, the patient calls the physician angrily and says, "The pharmacist said that taking this medication might cancel the effects of my birth control pills! Why would you prescribe me this drug?" Which of the following is the most appropriate response for the physician?

1. "I'm sorry. This is my fault because I should have discussed this issue with you before." ✔
2. "It's not the pharmacist's job to be tinkering with your medications. I suggest you have the prescription filled somewhere else."
3. "It's really such a small chance that it is not worth worrying about."
4. "Really, there is no problem here. Pharmacists just like to show what they know."
5. "Really, there is nothing to worry about. I'll call the pharmacist and work it out."
6. "The pharmacist is being overly cautious. As long as you take both medications as I prescribed them for you, you will have no problem."

INCORRECT ✖

The correct answer is 1.

Always admit a mistake. In this case, the physician erred in not discussing the interaction of the new prescription with other drugs the patient was taking. The right answer starts by admitting the mistake and apologizing, moves on to provide the necessary information to the patient, and closes by admitting the mistake again. Physicians are only human beings, and they do make mistakes. Within the context of a good relationship with the patient, most mistakes can be discussed openly and then corrected. With this discussion, the physician-patient relationship is strengthened.

(Choices 2, 4 & 6) are defensive. Worse, they do not acknowledge the mistake and they miss the opportunity to educate the patient. Denigrating the pharmacist, who is correctly doing his job, seeks to hide the mistake rather than correcting it.

(Choice 3) provides an explanation without admitting that a mistake was made. If the physician wants honesty from the patient, he must provide it in turn. Admit the error and then correct it.

(Choice 5) suggests both that there is no problem, and that the physician will talk with the pharmacist and solve it. This response is deceitful. No mistake is admitted, and the chance to educate the patient is lost.

1 points

A 69-year-old man has a follow-up appointment with his physician because of back pain. In the course of discussing his back pain, he mentions that he is concerned about his wife, who has recently been diagnosed with cancer. Which of the following would be the physician's best response?

1. Ask the patient to describe his pain
2. Express understanding for why the patient would be concerned ✔
3. Refer the patient to a psychiatrist with expertise in cancer
4. Tell the patient that It is expected that as one ages, illnesses such as cancer are likely to occur
5. Use a direct question to focus the interview

INCORRECT ✖

The correct answer is 2.

Expressing empathy shows concern, and is likely to facilitate building of rapport with the patient and improved patient satisfaction. The patient is also more likely to be compliant with treatment recommendations regarding his own care if he feels understood and trusts his physician.

(Choice 1) Although an open-ended question will allow the patient to provide more detail about his pain, It does not express empathy and ignores the patient's concern about his wife.

(Choice 3) There is no indication that this patient requires a psychiatric evaluation, and such a referral is likely to offend the patient and have a negative impact on the physician-patient relationship.

(Choice 4) conveys knowledge of aging/disease, this response may minimize the patient's concern and "misses" the underlying emotion.

(Choice 5) Direct questions are used primarily to elicit very specific information, such as in emergency situations, and do not facilitate more open communication of feelings.

1 points

A 5-year-old girl is brought to the emergency department by her parents because of abdominal pain. Physical examination shows multiple bruises on the abdomen and thorax in different stages of healing. A chest x-ray shows hairline fractures of two ribs. The parents say that they do not know how she developed the bruises or the fractures. Which of the following is the most appropriate next step?

1. Call the police immediately
2. Hospitalize the child for further studies
3. Notify Child Protective Services
4. Obtain a promise from the parents that they will not strike the child again
5. Separate the child from the parents ✔

INCORRECT ✖

The correct answer is 5.

While there is still some possibility that the child has a medical condition (such as, for example, osteogenesis imperfecta, in which a genetic abnormality of bones can predispose for fractures), the signs suggest child abuse. Based on this suspicion, the physician must act. The question: is what action? Separating the child from the parents is recommended in order to ensure the parents do not leave with the child before the authorities can be notified. After the child is separated from the parents, THEN report the case to Child Protective Services **(Choice 3)**. It is the responsibility of this agency to prove or disprove the suspicion, and to establish supervision of the child if abuse is verified. Order matters here. First, protect and then report. Remember, the physician is not judge and jury here, but a screening mechanism.

(Choice 1) is only appropriate if Child Protective Services is not available and only after the custody of the child has been secured.

(Choice 2) The child does not have injuries that require hospitalization.

(Choice 4) We feel that past behavior is the best prediction of future behavior, so any promise on the part of the parents should be viewed with skepticism.